H.264 4/8/16-Channel DVR
User Manual

Products: BLK-DH200400D, BLK-DH200800D, BLK-DH201600D

PLEASE READ THIS MANUAL BEFORE USING YOUR RECORDER, and always follow the instructions for safety and proper use. Save this manual for future reference.

Operate this system only in environments where the temperature and humidity is within the recommended range. Operation in temperatures or at humidity levels outside the recommended range may cause electric shock and shorten the life of the product. Refer to the specifications for each system component for more information.

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SECTION 1
Introduction

Features

- H.264 Video Compression
- Reliable File System
- Live and Event Pop-up
- VGA display interface (1280 x 1024)
- 4 Channel Audio Recording
- Bidirectional Audio
- Individual Channel Operation
- Motion Detection
- Automatic Video Input and Video Loss Detection
- Covert Camera Operation Provides Enhanced Security
- Built-In PTZ Camera Control
- User friendly operator interface
- Record scheduler
- Software upgradable
- Backup via USB flash drive, Network or DVD-R/W
- Exclusive file format backup
- AVI backup
- Network Access via WebViewer (embedded browser-based client), UMS Client (for monitoring a single DVR), UMS Multi Client (for monitoring multiple DVRs concurrently), and smartphone apps for Apple® iPhone® and Android™.

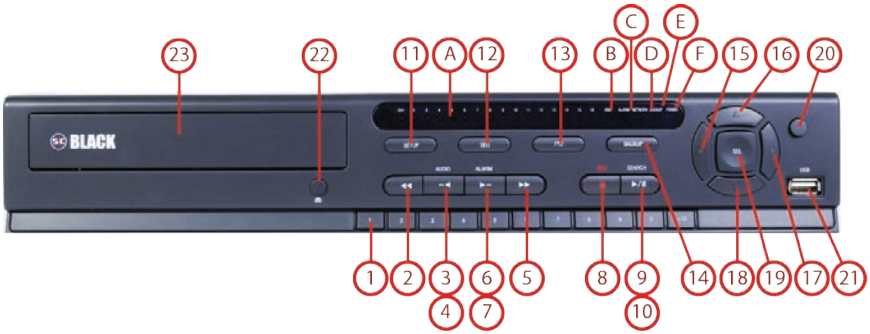
Your DVR includes:

- DVR with DVD-R/W drive and hard disk drive (HDD)
- Software CD containing the UMS Client, UMS Multi Client, and the DVR user manual (this document)
- Remote Control
- Battery 1.5V (2 x AAA)
- Power Adaptor (12VDC, 5A) and cable
- Mouse
- Quick Start Guide document

SECTION 2

Hardware Overview

2.1 Front panel



4/8/16 Channel DVR Front Panel

Table 1. Front Panel LED Indicators

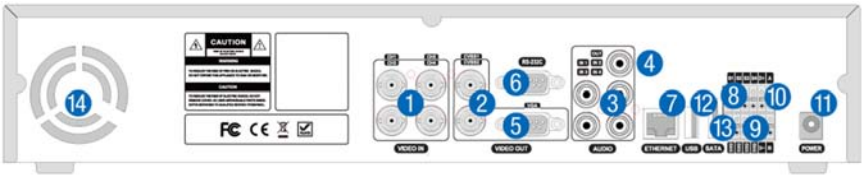
No.	Name	Description
A	CH1~16	Indicates that the channel is being recorded.
B	HDD	Indicates that the system is accessing the hard disk.
C	ALARM	Indicates when a sensor is triggered or motion is detected.
D	NETWORK	Indicates that a network client is connected.
E	BACKUP	Indicates that a USB or DVD-R/W storage device is storing images or video.
F	POWER	Indicates that the system is switched on.

Table 2. Front Panel Buttons

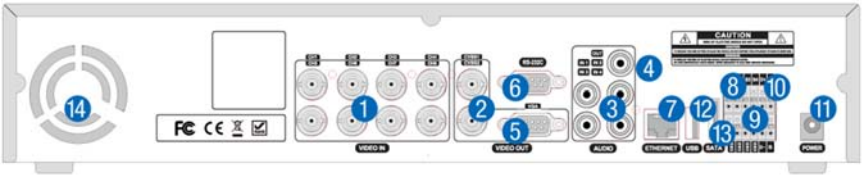
No.	Name	Description
1		Channel keys. For channel 10, press the 0 key. For channel 11, press the +10 and 1 key. For channel 16, press the +10 and 6 key.
2		Press to rewind the video in playback mode.
3		Press to select audio mode such as SINGLE (highlighted channel), MIX (combine all channels), or MUTE (all channels).

No.	Name	Description
4	AUDIO ··◄	Jump/step backward. In playback mode, the playback position moves 60 seconds backward.
5	►►	Press to fast forward the footage in playback mode.
6	ALARM ►··	Press to enable/disable ALARM operation.
7	ALARM ►··	Jump/Step forward. In playback mode, the playback position moves 60 seconds forward.
8	REC ●	Press to start or stop manual recording.
9	SEARCH ►/II	Press to open the SEARCH menu in live display mode.
10	SEARCH ►/II	Press to play/pause the recording in playback mode.
11	SETUP	Press to enter SETUP menu.
12	SEQ	Enable/disable the automatic sequence display of channels in full screen, quad-split, and 9-split display mode.
13	PTZ	Press to control Pan/Tilt/Zoom operations.
14	BACKUP	Press to capture live or playback mode video in JPEG format.
15	◀ (LEFT)	Press to move left or to change the values in Setup mode. When entering a password, it inserts a 4.
16	▲ (UP)	Press to move up the menu in Setup mode. When entering a password, it inserts a 1.
17	▶ (RIGHT)	Press to move right or to change the values in Setup mode. When entering a password, it inserts a 2.
18	▼ (DOWN)	Press to move down the menu in Setup mode. When entering a password, it inserts a 3.
19	SEL	Press to select desired menu item or to store the setup value.
20	ESC ○	Press for temporary storage of the changed value or to return to the previous menu screen.
21	USB Port	Use with a USB flash drive to archive still images and videos, and upgrade firmware, or use to connect a USB mouse to the DVR.
22	○ ▲	To open and close the insert tray, press the button
23	DVD Drive	To save video, insert a CD-R/DVD-R

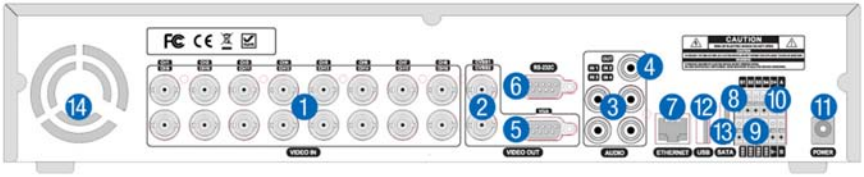
2.2 Rear panel



4-Channel DVR Rear Panel



8-Channel DVR Rear Panel



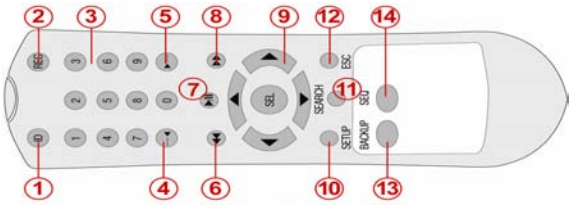
16-Channel DVR Rear Panel

Table 3. Rear Panel Connectors

No.	Name	Description
1	VIDEO IN	16 connectors for video input.
2	CVBS	Spot out 1: Live view screen. Spot out 2: One channel screen with an event image.
3	AUDIO IN	4 RCA connectors for audio input.
4	AUDIO OUT	RCA connector for audio output.
5	VGA	Connector for a VGA monitor.
6	RS-232	For factory use only.

No.	Name	Description
7	ETHERNET	RJ-45 connector for LAN connection.
8	SENSOR IN	4 connectors for sensor device connection.
9	ALARM OUT	Connector for alarm reporting device. Provides simple On/Off switching by using a relay. 0.5A/125V, 1A/30V
10	RS-485	RS-485 control terminal
11	POWER SOCKET	Connect DC12V 5A adaptor
12	USB	Use with a USB flash drive to archive still images and videos, and upgrade firmware, or use to connect a USB mouse to the DVR.
13	SATA	Connector for external SATA device
14	COOLING FAN	

2.3 Remote Control



Typical Remote Control

NOTE *The remote control provided with your DVR may appear different from the one shown above. However, the buttons function as described in the table below.*

Table 4. Remote Control Button Functions

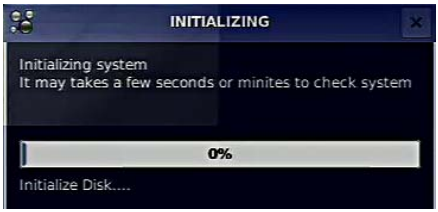
No.	Name	Function
1	ID	When a remote control ID number is setup in DVR, press this button before the number.
2	REC	To start and stop manual recording.
3	0 .. 9	To select channel (1, 2, 3, ..) or to enter a DVR ID number.
4	F/REW	During Playback – To move the playback position 60 seconds back. During Pause – To move the playback position 1 frame back.
5	F/ADV	During Playback – To move the playback position 60 seconds forward. During Pause – To move the playback position moves 1 frame forward.

No.	Name	Function
6	REW	To rewind the recording at 1x, 2x, 4x, or 8x speed during playback.
7	PLAY/PAUSE	To play or to pause the recording in playback mode.
8	FF	To fast forward the recording at 1x, 2x, 4x, or 8x speeds during playback.
9	Direction Buttons	Press to move to menu items or select a channel.
10	SETUP	To open the SETUP menu.
11	SEARCH	To go to the SEARCH menu.
12	ESC	During setup – To return to the previous menu screen. During playback – To exit playback mode System lock – To lock a system when pressing **ESC** button for 5 seconds. System unlock – To unlock a system when pressing **ESC** button for 5 seconds.
13	BACKUP	To start a backup operations in live or playback mode.
14	SEQ	To start auto sequencing the screen in full screen mode. (Toggle)

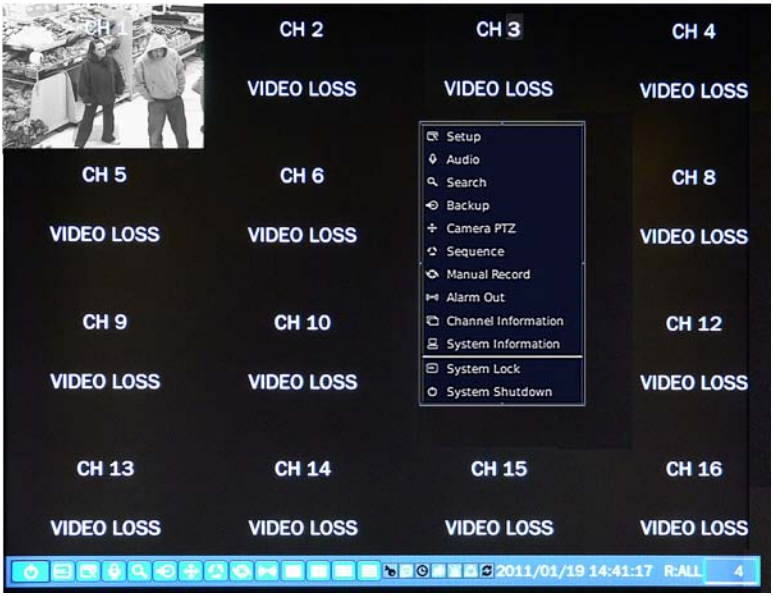
SECTION 3
System Setup

3.1 Starting the system for the first time

When booting the system for the first time, the following messages appear. After the initialization sequence completes, select your preferred language and set the date and time.



When the **Set date and time** window opens, use the dropdown lists to show the correct date and time, then click **Finish**. The date and time setting is used to timestamp recordings.



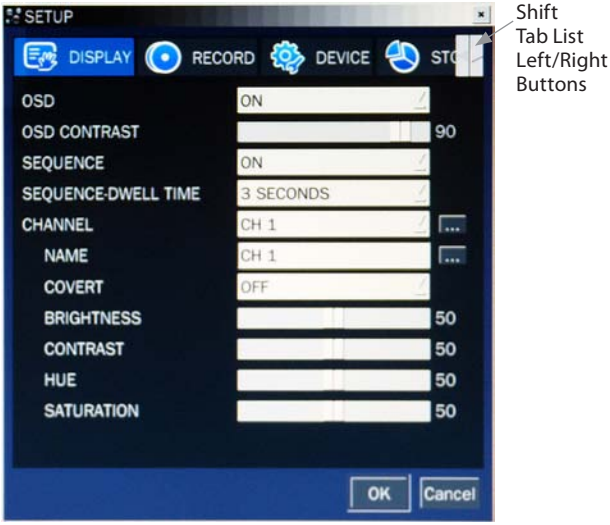
Typical System Desktop Display With One Camera Active

3.1.1 Entering the SETUP menu

1. To enter the SETUP menu, right click on the desktop or press the **SETUP** button on the remote control, then click the **Setup** entry in the pop-up menu. A LOG-IN window will open.

2. In the LOG-IN window, open the virtual keyboard and enter the PASSWORD, or use the direction buttons on the front panel. The default password is "**1111**". For improved security, Supercircuits recommends that you change the password at this time. You can select a new password through the SECURITY tab in the SETUP menu.

After entering the password, the SETUP window will open.



You can shift the tab list by clicking the left or right buttons in the upper-right corner of the window. Open a menu by clicking the tab. To close the window, click **Cancel**. To save changes made to the menus before closing the window, click **OK**. The SETUP menus include the following tabs:

- DISPLAY
- RECORD
- DEVICE
- STORAGE
- SYSTEM
- SECURITY
- NETWORK
- CONFIG
- QUICK SETUP

For a summary of the elements in each SETUP submenu (tab), refer to Appendix C.

Navigating the menus

Navigate through the menu items using the direction button, ▲, ▼, ◀, or ▶ and change option values with the **SEL** button. You can also navigate through the menu system, change option values, and click buttons with the mouse. Always select (or click) **OK** to save new settings and close the SETUP menus. Press the **ESC** button at any time to exit the SETUP menus.

NOTE *In the following descriptions of the SETUP menus, the instructions for navigating the system includes use of the front panel buttons only. Using a mouse for menu navigation and setup of system options can be easier and faster.*

3.2 DISPLAY menu

Opening the SETUP menu, or clicking the **DISPLAY** tab, opens the **DISPLAY** menu.

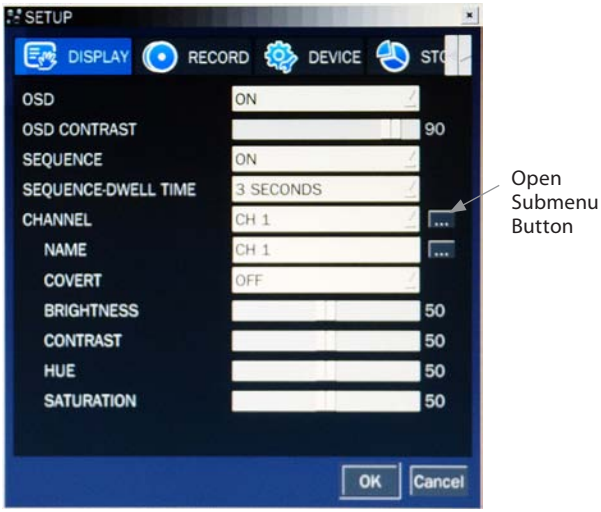
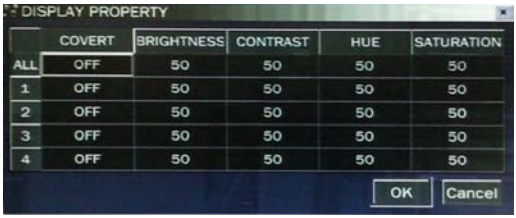


Table 5. DISPLAY menu options

Item	Description
OSD	Enable/disable the on-screen display.
OSD CONTRAST	Set the visibility level of the OSD. (0 ~ 100)
SEQUENCE	Enable/disable sequential display of video in full screen mode.
SEQ-DWELL TIME	Set the dwell time of each quad-split or 9-channel display in sequential display mode. (3 - 60 seconds)

Item	Description
CHANNEL	Highlight the field with the ▲ or ▼ buttons, use the ◀ or ▶ buttons to display a channel you want, then press **SEL**. You can also highlight and select the submenu button to open the DiSPLAY PROPERTY window. In the DiSPLAY PROPERTY window, use the ▲, ▼, ◀, and ▶ buttons to highlight a parameter, press **SEL**, use the ▲, ▼, ◀, and ▶ buttons to change the parameter value, then press **SEL**. Highlight the **OK** button and press **SEL** to confirm the settings and close the window. 
NAME	Specify the channel name. Press **SEL** to open the virtual keyboard, use the ▲, ▼, ◀, and ▶ buttons and **SEL** button to enter the channel name. Highlight the **OK** button and press **SEL** to confirm the settings and close the keyboard window. The channel name can have 10 characters at most.
COVERT	Enable/disable display of the specified video channel in live display mode.
BRIGHTNESS	Change the brightness value of the selected channel. (0 ~ 100)
CONTRAST	Change the contrast value of the selected channel. (0 ~ 100)
HUE	Change the hue value of the selected channel. (0 ~ 100)
SATURATION	Change the saturation value of the selected channel. (0 ~ 100)

3.3 RECORD menu

Clicking the **RECORD** tab opens the **RECORD** menu.

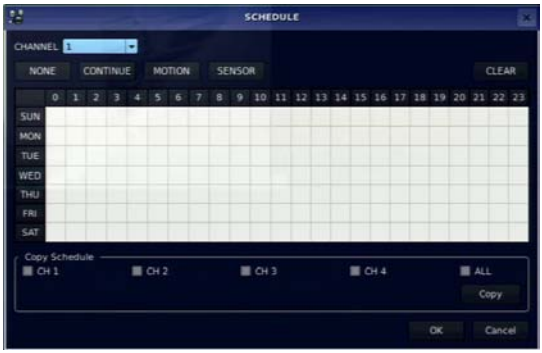
Table 6. Menu Items in Recording Mode Setup

Menu Item	Description
CHANNEL	Highlight the field with the ▲ ▼ buttons, use the ◀ ▶ buttons to display a channel you want, then press **SEL**. You can also highlight and select the submenu button to open the RECORD PROPERTY window. In the RECORD PROPERTY window, use the ▲, ▼, ◀, and ▶ buttons to highlight a parameter, press **SEL**, use the ▲, ▼, ◀, and ▶ buttons to change the parameter value, then press **SEL**. Highlight the **OK** button and press **SEL** to confirm the settings and close the window
RESOLUTION	Select either CIF, Half D1, or D1 using the ▲, ▼, ◀, and ▶ buttons.
FRAME RATE	Set the frame rate for the specified channel. The sum of the frame rate values from each channel cannot exceed the maximum frame rates for a specific recording resolution. The maximum video frame rate is 120 fps.
QUALITY	Select the recording quality for the specified channel. Options are: Network, Standard, High, Superior and Ultra.
RECORDING	Assign the recording mode for each channel. Options are: Continuous, By Motion, By Sensor, By Schedule, or Disable.
PRE RECORD	Enable/disable pre-event recording. Pre-event recording time is 5 seconds (video from 5 seconds before the event is recorded with the eventt). Only intra-frames are recorded during pre-event recording.

Menu Item	Description
POST EVENT RECORD	Set the post event recording time duration for the specified channel. (10 ~ 30 seconds)
SENSOR RECORDING	Enable setting up to 4 sensors for the specified channel using the ▲, ▼, ◀, or ▶ buttons.
AUDIO	Enable/disable audio recording for the specified channel. Available only on channel 1 through channel 4.
SCHEDULE	Set the recording schedule. Press **SEL** to open the SCHEDULE window. .

3.3.1 Recording Schedules

To setup a recording schedule, select SCHEDULE in the RECORD menu. Navigate through the items using the ▲, ▼, ◀, and ▶ buttons.

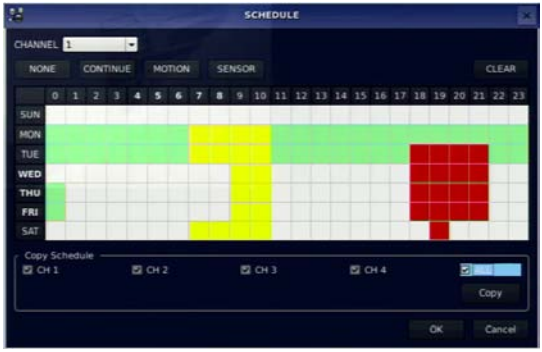


[CHANNEL]: Select the specific channel.

[SETUP]: Use ▲ and ▼ buttons to highlight a record type (None, Continuous, Motion, Sensor), then press **SEL** to select it. Use the ▲, ▼, ◀, and ▶ buttons to highlight a timeslot in the schedule, then press **SEL** to apply the record type to that timeslot. Repeat this to apply other record types to other time slots. Select the ALL option to apply the schedule to all cameras channels. You can select or deselect any option by clicking it with a mouse, and you can select a block of timeslots by clicking and dragging the mouse across them. Timeslots are color coded for the record type applied to them: CONTINUOUS - green, MOTION - yellow, and SENSOR - red, None - white.

[COPY Schedule]: To copy the schedule setup on channel 1 to channel 2, select the channel 1 schedule, select COPY using the ▲, ▼, ◀, and ▶ buttons, select CH2 using the ▲, ▼, ◀, and ▶ buttons, then press the **SEL** button.

To return to **SETUP** menu screen, press the **ESC** button.



3.4 DEVICE menu

Clicking the **DEVICE** tab opens the DEVICE menu. To return to **SETUP** menu, press the **ESC** button.

Table 7. Menu Items in Device Setup Screen

Item	Description
VIDEO OUT	Opens a submenu to select the VGA video resolution: 1024 x 768 or 1280 x 1024

Item	Description
ALARM OUT	Set the sensor, motion, and video loss for each alarm.
PTZ	Set the PTZ camera speed, number, type and ID.
SPOT-OUT	Set the configuration for SPOT 2 monitoring only.
CHANNEL	Select specified channel for motion zone setup.
MOTION ZONE	Select either Full Zone or Partial Zone for motion sensing.
MOTION SENSITIVITY	Set the motion sensitivity for the specified channel. (1 ~ 9).
KEY TONE	Enable/disable tone when key is pressed. .
REMOTE CONTROL ID	Select an ID for the remote control. 1. Select ID number. 2. On the remote control, press the same number as the ID set in the DVR. 3. An icon will be displayed on Live screen that corresponds to the remote control. (0 ~ 99)
SENSOR	Select sensor number. (1 ~ 4)
TYPE	Set the type of sensor for the specified channel. (OFF, N/O (normal open), N/C (normal closed)).

3.4.1 ALARM OUT submenu

Table 8. Menu Item in ALARM-OUT Setup Screen

Item	Description
ALARM OUT	1 only.
SENSOR IN	Enable setting 1 of 4 cameras for each alarm.
MOTION ON	Enable setting 1 of 4 cameras for each alarm.
VIDEO LOSS ON	Enable setting 1 of 4 cameras for each alarm.
ALARM DURATION	Set the alarm dwell time. (5 ~ 60 seconds).
ERROR ALARM	Set the error type for the alarm activation. (OFF, ALL, HDD ERROR, VIDEO LOSS).

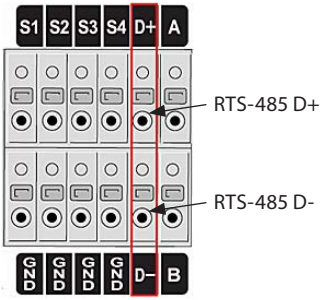
3.4.2 SPOT-OUT setup

Table 9. Menu Item in SPOT-OUT Setup Screen

Item	Description
SPOT OUT	SPOT 2 only
SPOT TYPE	SPOT 2 supports QUAD type and FULL type.
SPOT ON EVENT	Enable/disable display of the channel when an event is active. SPOT 2 displays when event is active.
SPOT EVENT DWELL TIME	Set the dwell time for the event activated channel (1 - 10 sec).
SEQUENCE	Enable/disable sequential display of spot channel(s) in full screen. If ON is selected, the spot channel is displayed.
SEQUENCE-DWELL TIME	Set the dwell time for the spot channel display (1-10 sec).
SPOT CHANNEL	Select a channel for spot monitoring. Press **SEL** and select channel using the ▲, ▼, ◀, and ▶ buttons, then press **SEL**.

3.4.3 PTZ Setup

To control the PTZ functions of the camera, connect the PTZ controller to the RS-485 port on the back of the chassis with CAT 5 (or equivalent) cable.



Open the PTZ submenu by selecting the submenu button.

NOTE *Connect speed dome cameras that support RS-485 directly to the RS-485 port. If the camera is controlled through an RS-232C interface, use an RS-232C to RS-485 signal converter.*

Use the PTZ setup screen to select the following options for the camera PTZ controller:

CHANNEL: Channel connected to a PTZ device
NAME: Protocol type
SPEED: 19200, 14400, 9600, 4800, 2400
ID: 0 ~ 63

3.4.4 MOTION ZONE Setup

Select MOTION ZONE using the ▲, ▼, ◀, and ▶ buttons, select either **PARTIAL ZONE** or **FULL ZONE**, then press **SEL**.

FULL ZONE: The motion sensor is active on the whole screen. Set the level of sensitivity for MOTION SENSITIVITY.
PARTIAL ZONE: The motion sensor is active in the set detection frame (highlighted in green). To select or deselect a block for motion detection, use the ▲, ▼, ◀, and ▶ buttons to move to the block, then press **SEL**. Press **ESC** to return to the **DEVICE** menu.

Partial Zone Detection Area (in green)

3.5 STORAGE menu

Clicking the **STORAGE** tab opens the storage menu. Navigate through the menu items using the ▲, ▼, ◀, and ▶ buttons, press **SEL** to select the item, use the ▲, ▼, ◀, and ▶ buttons to change the value, then press **SEL** again to confirm that value. Move to the next item you want to change using the ▲, ▼, ◀, and ▶ buttons. To return to setup menu screen, press **ESC**.

Table 10. Menu Items in STORAGE Setup Screen

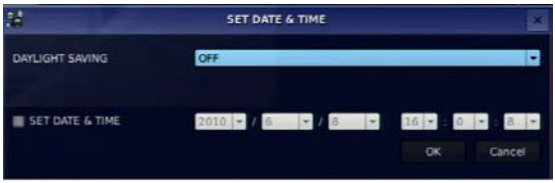
Item	Description
OVERWRITE	If enabled, the DVR will continue recording when the drive is full, overwriting the oldest information first. If disabled, recording will stop when the hard drive is full.
DISK FORMAT	Select YES or NO to format the hard drive (disk). **Caution**: Formatting the hard drive will erase all information on the disk. Archive all data that you may need before formatting the disk.
DISK INFO	Hard drive information
RECORDING LIMIT	Enable/disable a recording limit.
RECORDING LIMIT DAYS	Set the recording limit in days (1- 90 days). If set to 1 day, data older than 24 hours will be removed.
S.M.A.R.T.	Use to set the HDD temperature limit.

3.6 SYSTEM menu

Clicking the SYSTEM tab opens the system menu. Navigate through the menu items using the ▲, ▼, ◀, and ▶ buttons, press **SEL** to select the item, use the ▲, ▼, ◀, and ▶ buttons to change the value, then press **SEL** again to confirm that value. Move to the next item you want to change using the ▲, ▼, ◀, and ▶ buttons. To return to SETUP menu screen, press the **ESC** button.

Table 11. Menu Items in SYSTEM Setup Screen

Item	Description
DVR ID	Select the submenu button to open the virtual keyboard. Press **SEL** to open the virtual keyboard, use the ▲, ▼, ◀, and ▶ and **SEL** buttons to enter the DVR ID, then highlight the **OK** button and press **SEL** to confirm your selection and close the keyboard window. The DVR ID can have a most 10 characters.
DESCRIPTION	Press the **SEL** button to view system information (hardware version, software version, storage size, IP address, MAC address, and DDNS status).
LANGUAGE	Select the display language using the ▲, ▼, ◀, and ▶ buttons. When a language is selected, the screen language changes. Options include: English, Korean, Japanese, SP Chinese, TR Chinese, Czech, Finnish, French, Greek, Italian, Dutch, Norse, Russian, Spanish, Turkish, Polish, Danish, Persian, Croatian, German, Portuguese, Portuguese (Brazil), Arabic..
DATE FORMAT	Select the date format using the ▲, ▼, ◀, and ▶ buttons. Options include: YYYY/MM/DD, MM/DD/YYYY, DD/MM/YYYY, YYYY-MM-DD, MM-DD-YYYY, DD-MM-YYYY.

Item	Description
SET DATE & TIME	To set the date and time, move the cursor to SET DATE & TIME submenu button using the ▲, ▼, ◀, and ▶ buttons, then press the **SEL** button.  In the SET DATE & TIME window, use the ◀ and ▶ buttons to change the timestamp component value, then press **SEL** to confirm it and move to the next field. To move to another field without changing it, use the ▲ and ▼ buttons. Highlight the **OK** button and press **SEL** to confirm your selection and close the window, or press **ESC** button to return to SYSTEM setup menu.
	DAY LIGHT SAVING: Move the cursor to DAYLIGHT SAVING using the ▲ and ▼ buttons, change the option shown with the ◀ and ▶ buttons, then press **SEL** to confirm your selection. Select the appropriate daylight saving time zone using the ▲, ▼, ◀, and ▶ buttons. If choosing EU or OTHERS, set the applicable conditions. The options are: **USA**: Applies the USA daylight saving time. **EU**: Applies the EU daylight saving time. Select the GMT AREA and the time difference from standard time using the ▲, ▼, ◀, and ▶ buttons. **OTHERS**: If the time zone is neither USA nor EU, set the BEGIN and END date and time of the daylight saving period using the ▲, ▼, ◀, and ▶ buttons, then press the **SEL** button. Press the **ESC** button to return to SET DATE & TIME setup menu. **CAUTION**: Do not set the start time to 23:00 for DLS. DLS can't be applied if the date of BEGIN and END is the same.
CLIENT ACCESS	Enable/Disable remote access through network client software.
BANDWIDTH SAVING	Enable/Disable only key frame transmission. "ON" mode is recommended for use on low-bandwidth networks. Set to "OFF" for normal use.
SEND EMAIL	Enable/disable the send email feature (ON/OFF). **TRANSMISSION MODE**: When an alarm is triggered, send an image of only the channel that triggered the alarm. **IP NOTIFICATION**: Enable/disable sending email when the IP address of your DVR is changed. **EVENT ALARM**: When an alarm is triggered, enable/disable sending email reports of the channel that triggered the alarm. **MAIL TO**: Use the virtual keyboard to enter the email address of the recipient. **MAIL SERVER**: Use the virtual keyboard to enter the mail server information. **ID**: Use the virtual keyboard to specify the user ID for the mail server. **PASSWORD**: Use the virtual keyboard to specify the connection password for the mail server. **MAIL FROM**: Use the virtual keyboard to specify the email address sent to the destination host.

Item	Description
NTP	**NTP** (Network Time Protocol): Use to synchronize the clocks of computer systems over variable-latency data networks. **PRIMARY SNTP SERVER**: Use the virtual keyboard to enter the address of the primary NTP time server. **SECONDARY SNTP SERVER**: Use the virtual keyboard to enter the address of the secondary NTP time server. **TIME ZONE**: Select the offset from GMT (Greenwich Mean Time). **CONNECTON MODE**: Select an NTP time server connection mode (INTERVAL/TIME). **INTERVAL**: Synchronize the clock by hours shown on the connection period option. **TIME**: Synchronize the clock at the time daily shown on the connection period menu. CONNECTION PERIOD: 1 ~ 24.

3.7 SECURITY menu

Clicking the **SECURITY** tab opens the security menu. Navigate through the menu items using the ▲, ▼, ◀, and ▶ buttons, press **SEL** to select the item, use the ▲, ▼, ◀, and ▶ buttons to change the value, then press **SEL** again to confirm that value. Move to the next item you want to change using the the ▲, ▼, ◀, and ▶ buttons. To return to setup menu screen, press the **ESC** button.

NOTE *You must be a user with **Admin** permissions to configure the SECURITY menu.*

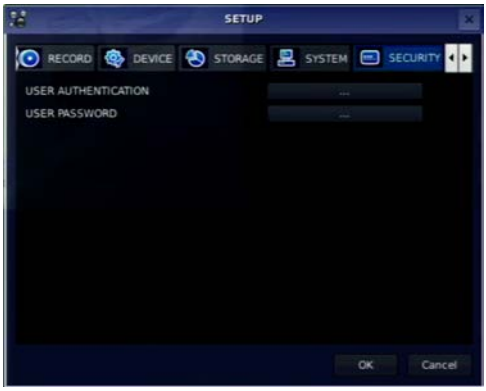


Table 12. Menu Items in PASSWORD Setup Screen

Item	Description
USER AUTHENTICATION	**PASSWORD CHECK**: Select either V or nothing for the functions such as SETUP, PB (playback), PTZ, R/OFF (record off), and Network. In the PASSWORD CHECK row, check or uncheck the box to select for all users, or check or uncheck the individual settings for each user. Press **ESC** to return to the SECURITY menu.
USER PASSWORD	In the USER PASSWORD window, move the cursor to the USER field with ▲ and ▼ buttons, then use the ◀ and ▶ buttons to display the username. Open the virtual keyboard for each subsequent entry to specify the passwords. Move to the OK button and press **SEL** to confirm the settings and return to the SECURITY menu. The message "PASSWORD CHANGED" will be displayed. The factory default password is **1111**.

NOTE *For improved system security, it is strongly recommended that you change the factory default password during the initial setup of your system.*

3.8 NETWORK menu

Clicking the SECURITY tab opens the security menu. Navigate through the menu items using the ▲, ▼, ◀, and ▶ buttons, press **SEL** to select the item, use the ▲, ▼, ◀, and ▶ buttons to change the value, then press **SEL** again to confirm that value. Move to the next item you want to change using the ▲, ▼, ◀, and ▶ buttons. To return to setup menu screen, press **ESC**.

NOTE *You must be a user with **Admin** permissions to configure the NETWORK menu.*

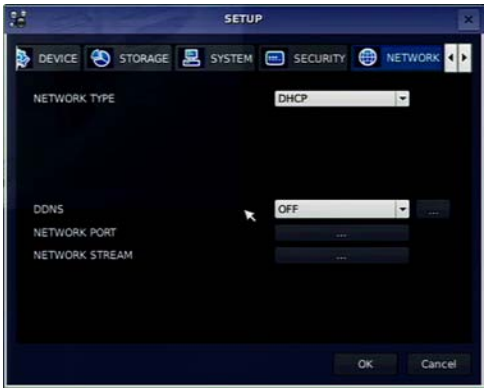
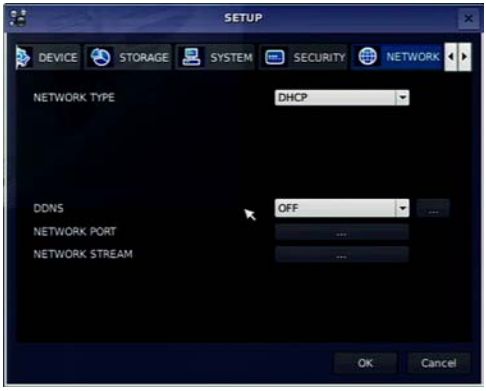


Table 13. Menu Items in the NETWORK menu

Item	Description
NETWORK TYPE	Select a type of network connection. Options are: DHCP, ADSL, LAN. NOTE: Depending on the selection, the options in the network menu will change appropriately.
DHCP	If selected, the DVR automatically acquires an IP address from a DHCP server. This address may change without notice.
ADSL (PPPoE)	**ID**: Registered ID is necessary for ADSL connection. **Password**: A registered password is necessary for an ADSL connection.
LAN	**IP**: Enter the IP address assigned to the DVR. This address is fixed until it is manually change. **GATEWAY**: Enter the Gateway IP address assigned for the DVR. **SUBNET MASK**: Enter the Subnet Mask for the subnet where the DVR is connected.
DDNS	Enable/disable use of a domain name server through which you access the DVR. If "ON", the DDNS server name appears in the field. **DDNS 1**: Select one of the following DDNS servers: in USA, use **www.ddnscenter.com**, in Korea, use **www.okddns.com**, or if in the eu, or use **www.bestddns.com**. **DDNS 2**: Select this type to use a general-purpose DDNS Server. **DDNS INTERVAL**: Set the connection interval (5 - 60 minutes).
NETWORK PORT	Set a port number for connecting to network.
PORT	Port number (default: 5445)
WEB PORT	Web sever port number (default: 80)
PORT FORWARD	Set the port forwarding for connecting to network.
NETWORK STREAM	Set the value for network streaming.

3.8.1 DHCP networks

When the DHCP option is selected, the IP address and other network parameters are automatically assigned by the DHCP server. If the network connection is reset, the assigned network parameters may change. ADSL and other network types that use a variable IP address method use this process to acquire an IP address.



3.8.2 ADSL (PPPoE) networks

Select the ADSL (PPPoE) option when the DVR is connected to a network using PPPoE (Point-to-Point Protocol over Ethernet). If the ADSL connection is not inputting the IP address and password through VDSL, or if DVR is installed in IP sharer, do not select this option; select DHCP or LAN.

3.8.3 LAN networks

Select the NETWORK TYPE - LAN if:

- You are using with a fixed IP address. See your network administrator to obtain network settings.
- The DVR is installed on an IP sharer that is connected thorough an ADSL modem. In this configuration, a user can assign a fixed IP address to the DVR from the IP sharer using the "DMZ" function. Enter the IP address set in DMZ into the IP address field, and Gateway of ADSL modem into the Gateway field. Similarly, for Subnet Mask, DNS address, input relevant values for the IP sharer.

Table 14. NETWORK - LAN menu options

Item	Description
IP	The fixed IP address of the DVR hardware. .
SUBNET MASK	The subnet mask for the LAN.
GATEWAY	The IP address of the Gateway.
1st DNS	The IP address for the DNS server.
2nd DNS	The IP address for the DNS server.

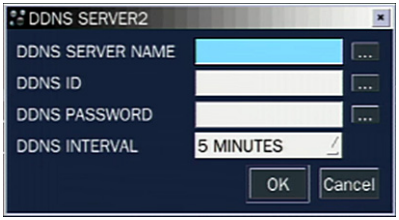
3.8.4 DDNS option

DDNS options include:

OFF: The DDNS option is not used.
SERVER1: This option allows you to choose one of three free DDNS servers: ddnscenter.com (USA), bestddns.com (EU and other areas), and OKddns.com (Korea). To connect to a network with a domain name, user must register a MAC address and

create a unique domain name to http://www.bestddns.com, http://www.okddns.com or http://www.ddnscenter.com. The DDNS interval can be set from 5 to 60 minutes.

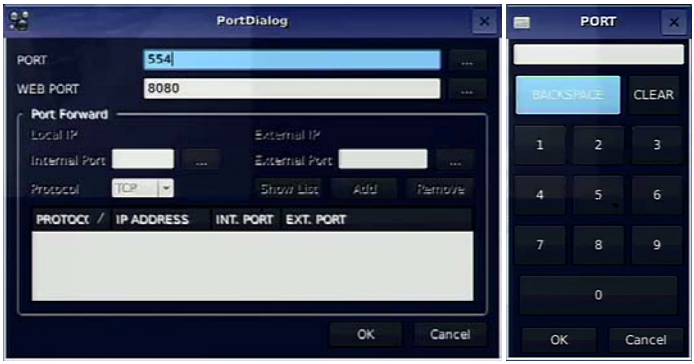
SERVER2: This option allows you to connect to a general purpose DDNS server. With this selection, you can enter a DDNS ID and password.



3.8.5 Network ports

When you connect one or more DVRs to a network through an IP sharing device, each DVR must be assigned a unique TCP port number for access from outside the LAN. Additionally, the IP sharing device must be configured to forward the assigned port to the specific DVR.

NOTE *This port number is listed next to the Port menu option in the Network Setup screen. If you access the DVR only from within the same LAN, the TCP port number does not need to be changed.*

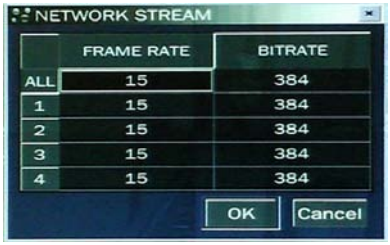


Network access beyond a router

To access the DVR beyond a router (firewall), you must open TCP ports for commands, for live channels, and for storage channels. The default DVR port numbers 5445 and the web port number 80. If this port is not opened properly, you cannot access the DVR outside a router.

3.8.6 Network stream

You can set the frame rate and bit rate for a network stream by channel. The total frame rate is CIF (352 × 288) at 120 fps. The bit rate can be set to 128, 256, 384, 512 or 768.

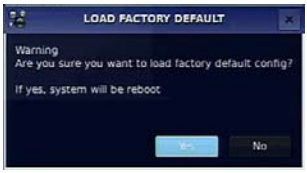


3.8.7 CONFIG menu

Clicking the **CONFIG** tab opens the system configuration menu. Navigate through the menu items using the ▲, ▼, ◀, and ▶ buttons, press **SEL** to select the item, use the ▲, ▼, ◀, and ▶ buttons to change the value, then press **SEL** again to confirm that value. Move to the next item you want to change using the ▲, ▼, ◀, and ▶ buttons. To return to the setup menu, press the **ESC** button.

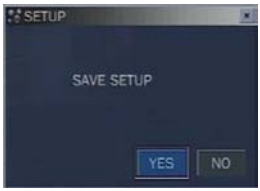
Table 15. CONFIG menu items

Item	Description
SAVE SETUP TO A USB	Save the current system configuration to the USB flash drive. Plug the flash drive into the USB port on the front panel and press **SEL** to start the save process.
LOAD SETUP FROM A USB	You can upload the configuration of DVR to another DVR using the USB flash drive. Plug the flash drive into the front panel USB port and press **SEL** to start the loading process.
LOAD DEFAULT	Select ON to reset the system to the default settings. The following items are not reset: language, DVR ID, Security User Authentication, Security User P/W, date format, DLS settings, network settings, HDD overwrite, limit recording, HDD serial number, and HDD ERROR time.

Item	Description
LOAD FACTORY DEFAULT	Select ON to reset the system to the factory default settings. 

3.9 Save setup

When configuration changes are made, a SAVE SETUP confirmation window will open. Select YES to save the changes you made.



SECTION 4

Live, Search, and Playback

In the Live screen, video inputs from the cameras are displayed the On-screen display (OSD) features as configured in the Display Setup screen. OSD icons that indicate the status of the DVR are shown along the bottom of the screen.

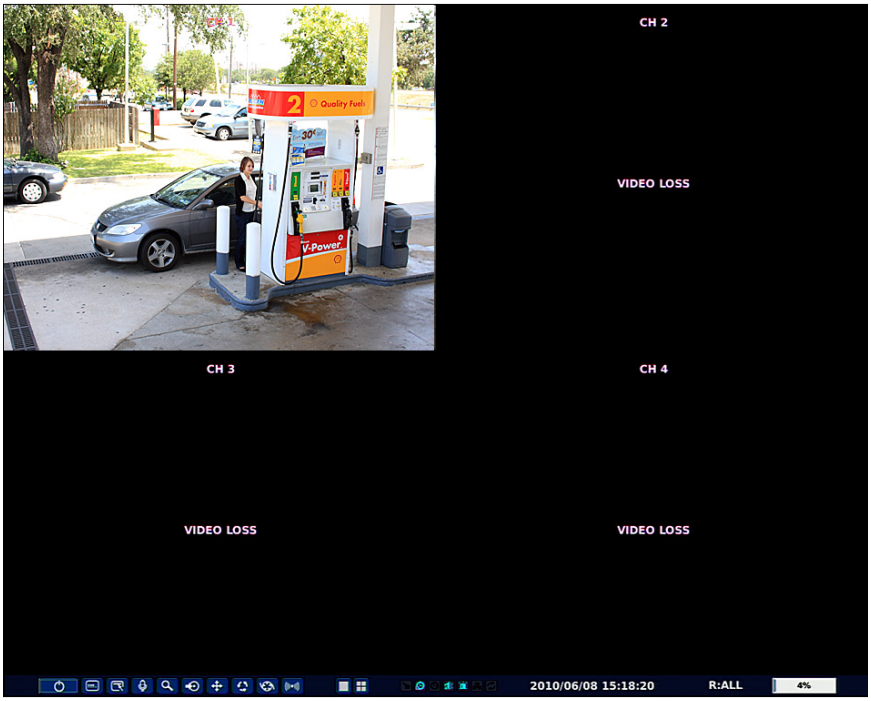


Table 16. Status Indicator Icons in Live Viewing Screen

Icon	Description
	Power On/Off button.
	Lock/Unlock SETUP button.
	Setup button. Click this button to open the SETUP menu.

Icon	Description
	Audio button. Click this button to set the audio reception type: audio mute, single audio channel, or 4 audio channels. To set a single audio channel, first select a specific channel on the live screen.
	Search button. Click this button to open the search menu.
	Backup button. Click this button to perform a backup.
	PTZ button for control of PTZ cameras. When this button is clicked, a PTZ control window will open.
	Sequence button. Click this button to use a sequence function.
	Manual Record button. Click this button to begin recording.
	Alarm-out function on/off button. When an alarm is in progress, click this button to stop reporting the alarm.
	Click the split screen icon to change the current split screen mode.
2009/04/14 17:23:40	The current date and time.
R:A	Remote control ID display. If a remote ID is not set, the message "A(all)" is displayed.
	Displays the amount of recording space used on the hard disk from 0-99%.
	Indicates that HDD is recycled (full and overwriting oldest data with new data).
	Continuous recording in progress.
	Manual recording in progress. To set Manual recording mode, press the Record button on the front panel.
	Motion alarm recording in progress.
	Sensor recording in progress.
	Indicates that the lock is set.
	Audio mute. To set audio mute, press the Audio button on the front panel.
	Single audio channel. To set audio single channel for the selected channel only, press the Audio button on the front panel.
	To mix audio channels, press the Audio button on the left side.

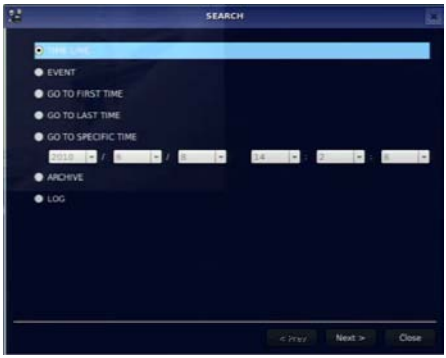
Icon	Description
	Indicates that alarm is set. To set the alarm function, press the Alarm button on the front panel.
	Indicates that the alarm output is activated.
	Alarm indicator. When an alarm is activated (sensor or motion alarm) in the video channel, this icon will be highlighted bright red.
	Indicates that a network client is connected to the DVR.
	Indicates that sequencing mode is enabled.

OSD menu

You can open the on-screen display menu with the mouse by right-clicking anywhere on the Live screen. Options in the OSD menu are also represented by the icons in the tray at the bottom of the screen.

4.1 SEARCH menu

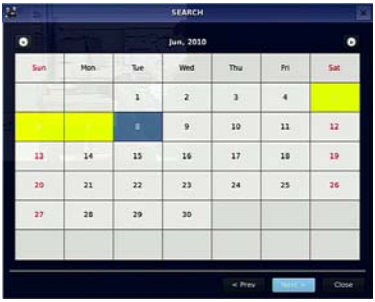
To open the SEARCH menu, press the SEARCH button on the front panel or click the SEARCH icon on the Live screen.



Recorded data can be searched in the following ways: TIMELINE, EVENT, GO TO FIRST TIME, GO TO LAST TIME, GO TO SPECIFIC TIME, ARCHIVE, and LOG.

4.1.1 TIME-LINE search

The TIME-LINE search window is used to find stored video by using the time line bar. Select TIME LINE in the SEARCH menu, then select NEXT. A calendar window will open.



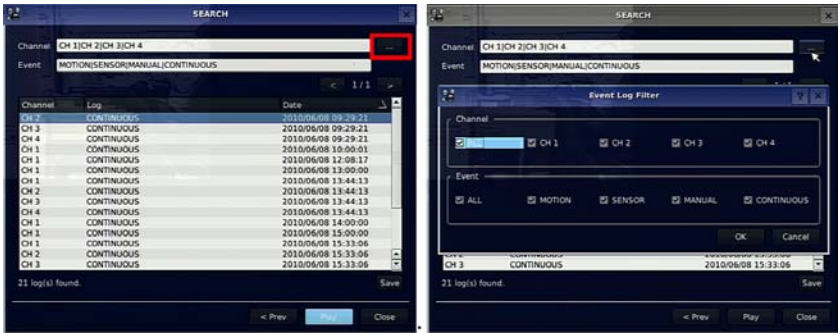
The highlighted days in the calendar window indicate that data was recorded at that time. The day selected is highlighted blue. Select the day of interest, then select NEXT.

In the TIME LINE window, the highlighted bars show the time of day when data was recorded. Drag the marker to the time when you want to begin playing a recording, click the channel number of interest, then click **NEXT** to play the video. To expand the timeline, click the icon in the upper-right corner between the ◀ and ▶ buttons. To stop the video playback, press the **ESC** button on the front panel.

4.1.2 EVENT search

Use EVENT search to quickly find recordings associated with specific events. To open the EVENT search window, select **EVENT** on the SEARCH window, then select **NEXT**. A calendar window will open (see above).

The highlighted days in the calendar window indicate that video was recorded at that time. Select the day of interest, then select **NEXT**.



In the Event list window, click the event of interest, then click NEXT to play the video. Press the ESC button to stop playing the video and return to the event list window.

The submenu button in the upper right corner opens a channel selection window where you can select the specific channel you want to play. Select the channel, the press the **ESC** button to return to the event list window.

4.1.3 GO TO FIRST TIME search

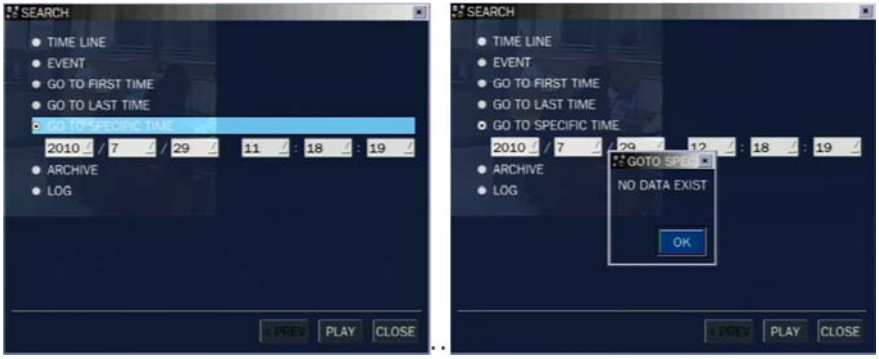
You can access from the oldest recorded data on the DVR by selecting GO TO FIRST TIME on the SEARCH window. Press the **ESC** to return to the SEARCH window.

4.1.4 GO TO LAST TIME search

You can access from the last minute recorded data on the DVR by selecting GO TO LAST TME on the SEARCH window. Press the **ESC** to return to the SEARCH window.

4.1.5 GO TO SPECIFIC TIME search

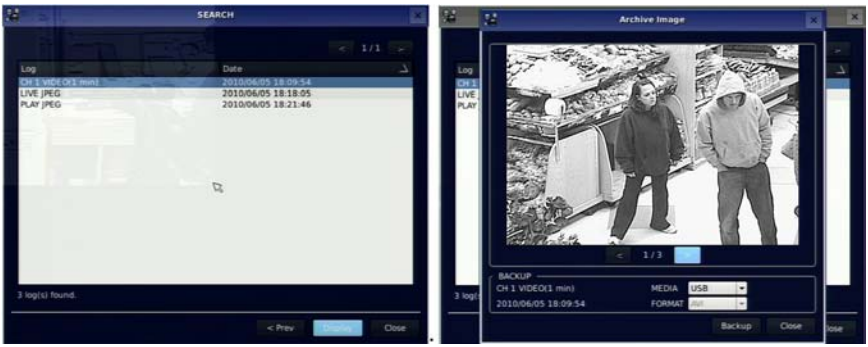
In the SEARCH window, select GO TO SPECIFIC TIME, then use the ▲, ▼, ◀, and ▶ buttons to enter the starting time of the video you want to play.



To stop playing video, press **ESC**. If no video was recorded at the time you entered, a NO DATA EXIST message will appear.

4.2 ARCHIVE search

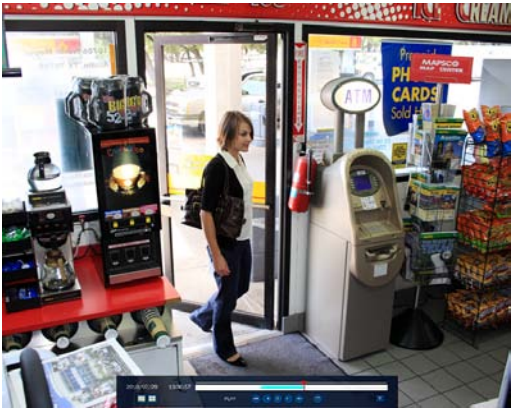
To perform an archive search (search of recorded video), select **ARCHIVE** in the SEARCH window. A calendar window will open. The highlighted days in the calendar window indicate that data recorded on those days was archived. Select the day when the data was archived, then select **NEXT**.



In the archive list, select the file entry you want to see, then select **DISPLAY**. In the ARCHIVE IMAGE window, select the media location and format of the archive. To close the ARCHIVE IMAGE window, press **ESC**.

4.3 PLAY mode

Playing a recorded event changes the DVR mode from SEARCH to PLAY. While in PLAY mode, you can return to the SEARCH screen by pressing the **ESC** button.



Playback controls are located at the bottom of the screen.

Table 17. Playback controls (PLAY Mode)

Icon	Description
	Select to the previous menu screen or search window, or exit from the menu.
◄◄	Select to rewind the recording at 1x (-1 x normal), 2x (-2 x normal), 4x (-4 x normal), 8x (-8 x normal), or 16x (-16 x normal). The speed is displayed in the lower-right corner of the screen.
--◄	Jump/step backward. The playback position moves 60 seconds back.
► / II	Select to play or pause a recording.
►--	Jump/step forward. Playback position moves 60 seconds ahead.
►►	Select to fast forward the recording at 1x (+1 x normal), 2x (+2 x normal), 4x (+4 x normal), 8x (+8 x normal), or 16x (+16 x normal). The speed is displayed in the lower-right corner of the screen.
	Select to backup video.

SECTION 5

PTZ Control

To control the PTZ functions of the camera, select **Camera PTZ** on the OSD menu. Use the ▲, ▼, ◀, and ▶ buttons to select the channel of the PTZ camera and features you want to control.

Table 18. Button functions in PTZ control

Item	Description
INITIALIZE	Initialize the PTZ settings of the selected camera.
PAN / TILT	Select PAN/TILT using the ▲ ▼ ◀ and ▶ button, then and press **SEL**. Adjust the tilt (UP/DOWN)/pan (LEFT/RIGHT) position using the ▲, ▼, ◀, and ▶ buttons.
ZOOM / FOCUS	Select ZOOM/FOCUS using the ▲, ▼, ◀, and ▶ buttons, then press **SEL**. Adjust the zoom (UP/DOWN)/focus (LEFT/RIGHT) position using the ▲, ▼, ◀, and ▶ buttons.
OSD	Select OSD to enter the menu. Control keys are Right, Left, UP, Down, Select, Far (REW KEY), and Near (FF KEY). Press the **ESC** button to return to the previous menu. Press the **PTZ** button to close the OSD menu.
AUTOSCAN	Press the right key (▶) to start auto scan. Press the left key (◀) to stop auto scan.
PRESET	Select PRESET, then press the left key (◀). A number input window will appear. Set the number (3 digits) using the number key, then press the **SEL** to confirm the preset number for the current position. Press the right key (▶) and enter the number (3 digits) to go to the preset position. .
TOUR	Select TOUR and press the right (▶) key. A number input window will open. Select a number (1 digit) using a number key, then press **SEL** to start the tour. Press the left (◀) key to stop the tour. Preset the number of the tour group in the OSD menu.
NUMBER	For the TOUR and PRESET menu.
	Press **ESC** to return to the main menu.

The Preset, Tour, OSD, and Autoscan function are only available on some camera models.

SECTION 6

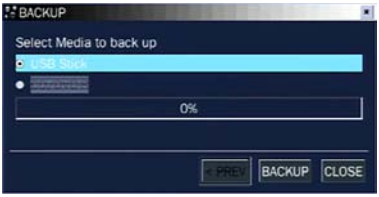
Backup

Still images and video clips can be backed up in both Live mode and Playback mode, and written to a USB flash drive (with FAT32 format) or CD/DVD.

6.1 Still image backup onto USB flash drive

Still images can be captured and backed up onto the USB flash drive or CD/DVD while in Live mode or during video playback. To initiate a backup, press the BACKUP button or select the BACK UP menu to launch the archive function.

1. If in Live mode, select the channel to backup the image from. The BACKUP window will open.



2. Select the media you want to save the image on. If you want to backup the image to a USB flash drive, insert the drive into the USB port on the back or front of the DVR. If you want to backup to a CD or DVD, place a blank CD-R/W or DVD-R/W disk into the DVD drive.

3. Select **BACKUP**. When the backup is complete, a message will appear. When the DVR backs up to a USB flash drive, it will create a directory on the flash drive with a date-coded named in the format "YYYYMMDD" (ex. "20110210") and write the file there.

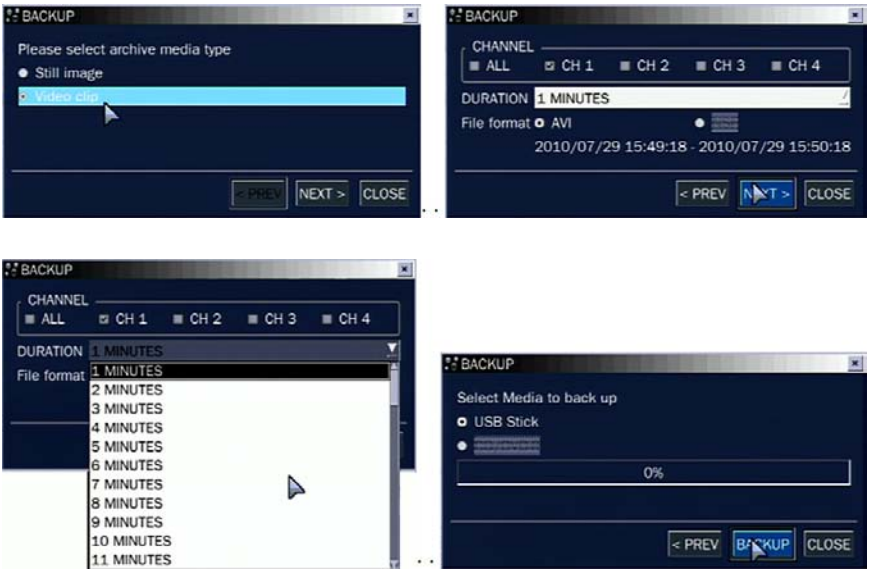
6.2 Video backup onto USB flash drive

Video can be archived onto the USB flash drive or CD/DVD while in playback mode. To perform the backup:

1. In playback mode, press the **BACKUP** button to launch the archiving function.

2. When the BACKUP window opens, select **Video clip**, then select **Next**.

3. In the BACKUP window, select the channel(s) you want to backup, the duration, and the file format (AVI or Huge Backup [NFS]), then select **Next**.



4. Select the media you want to back the image onto. If you want to backup the image to a USB flash drive, insert the drive into the USB port on the back or front of the DVR. If you want to backup to a CD or DVD, place a blank CD-R/W or DVD-R/W disk into the DVD drive.

5. Select **BACKUP**. When the backup is complete, a message will appear. When the DVR backs up to a USB flash drive, it will create a directory on the flash drive with a date-coded named in the format "YYYYMMDD" (ex. "20110210") and write the file there.

6.3 Copy still images or video from the ARCHIVE list

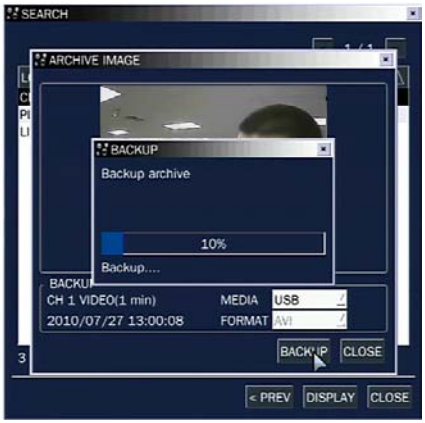
Video clips and images stored in the ARCHIVE list on your hard drive can be copied to a USB flash drive or a CD/DVD. To perform the copy:

1. Use the ▲, ▼, ◀, ▶, and SEL buttons to open the SEARCH window and select ARCHIVE. A calendar window will open. Dates highlighted in the calendar window indicate that archived data exists for that time.

2. In the calendar window, select a date, then select **Next**.

3. Scroll through the archive list and highlight the file of interest. Select **DISPLAY**.

4. In the ARCHIVE IMAGED window, select the media (USB or CD/DVD-R). If you want to copy the file to a USB flash drive, insert the drive into the USB port on the back or front of the DVR. If you want to backup to a CD or DVD, place a CD-R/W or DVD-R/W disk into the DVD drive.



5. Select **BACKUP** to copy the file to the media drive.

6. When the backup is complete, select **CLOSE** button to return to the LOG list window.

6.4 Playing backed up video clips

Video clips are backed up from the DVR in AVI format. These files can be played in Microsoft Windows with Window Media Player™ and other players compatible with AVI formatted files.

SECTION 7

Firmware Upgrade

The firmware installed in your DVR will probably never need to be changed. If new firmware is released, however, upgrading the firmware in your DVR may be recommended by Supercircuits.

The general instructions for upgrading firmware are included in this section. For additional information, specific instructions, and to obtain a firmware upgrade file, contact Supercircuits Support at: 1.800.335.9777.

To upgrade the firmware in your DVR:

1. Obtain the firmware update file from Supercircuits Support. The firmware upgrade file is usually named: "**apph_xxxxxx.bin**" where "xxxxxx" represents the revision level of the firmware.

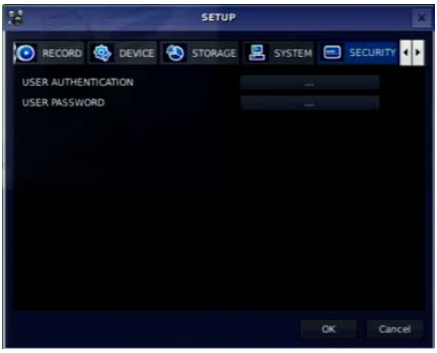
2. Plug a USB flash drive into a PC and format it for FAT32, if necessary.

3. Create a new directory on the flash drive named "**upgrade**".

4. Copy the firmware file to the **upgrade** directory on the flash drive.

5. Disconnect the flash drive from the PC and plug it into a USB port on the DVR.

6. Open the SETUP menu on the DVR, then open the SECURITY tab.

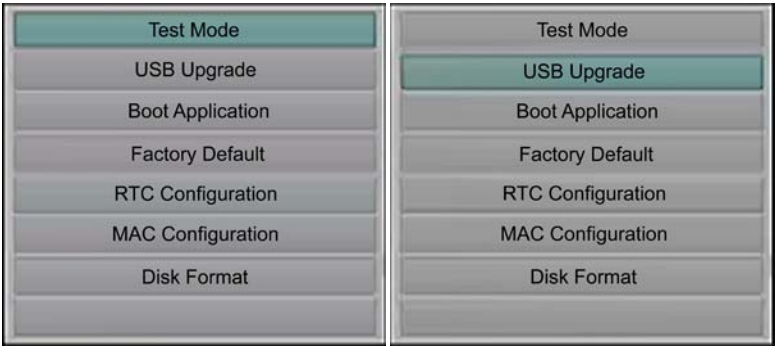


7. Select the **User Password** button.

8. In the USER PASSWORD window, select the USER **ADMIN** if not shown.

9. In the CURRENT field, click the submenu button to open the virtual keyboard. Enter "**12341234**", then select **OK**.

10. Return to the USER PASSWORD window and select **OK**. The DVR will restart and open a Diagnostics screen.



11. In the Diagnostic screen menu, select USB Upgrade.

NOTE *To exit the Diagnostics screen and restart the DVR, select **Boot Application** in the Diagnostic menu.*

12. Follow the on-screen instructions to install the firmware upgrade. After the upgrade is completed, select **Boot Application** to restart DVR.

SECTION 8

UMS Single Client Software

UMS Single Client software is used to remotely monitor a single DVR. It can be used to display live images from your cameras, search for and play back recorded data, monitor alarms, control PTZ devices, and capture and backup data.

NOTE *In a high bandwidth network, a maximum of four users can access one DVR simultaneously. In a low bandwidth network it is recommended that only one user access the DVR at a time.*

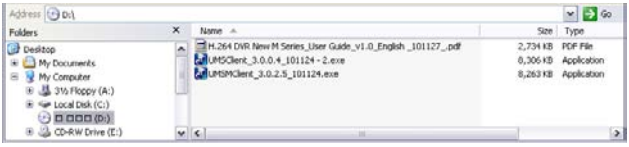
8.1 PC Requirements

For the UMS Single Client software, the minimum PC requirements are:

- **CPU**: Intel® Pentium® IV, 1.4 GHz or higher
- **Memory**: 512MB (1GB or larger is recommended.)
- **VGA memory**: 16 MB (64 MB or larger is recommended.)
- **Resolution**: 1024 x 768
- **Supported operating systems**: Microsoft® Windows® 2000, XP Professional, XP Home
- **DirectX®**: DirectX 8.1 or higher

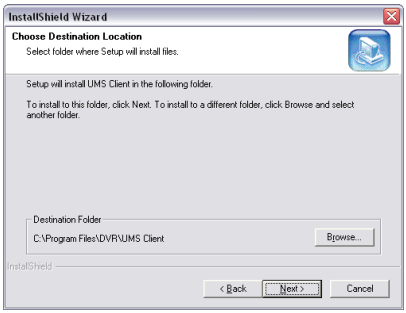
8.2 Installing the UMS Single Client

1. Insert the provided CD in the CD drive. Open a file list of the CD, then double-click "UMSClient(xxxxxx).exe"

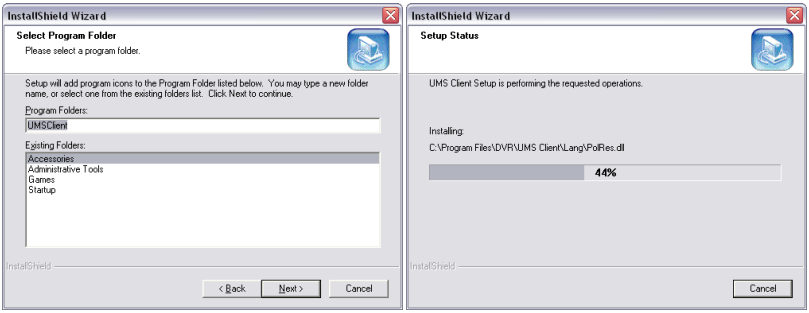


CD file list (typical)

2. After files are extracted, a Choose Destination Location window will open. Browse for the your preferred location, then click "**Next**".


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install UMS Client in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\DVR\UMS Client
Browse...
InstallShield
< Back
Next >
Cancel

3. Select the preferred program folder, then click "**Next**". The setup status screen will open.



4. Select a Program Folder for the **Start** menu, then click **Next**. The UMS client will be installed and a UMS Client icon will appear on the desktop.

5. Close the InstallShield window.

8.3 UMS Single Client initial display

To open the UMS Single Client, double-click the icon on the desktop, or open it through the Windows **Start** menu.

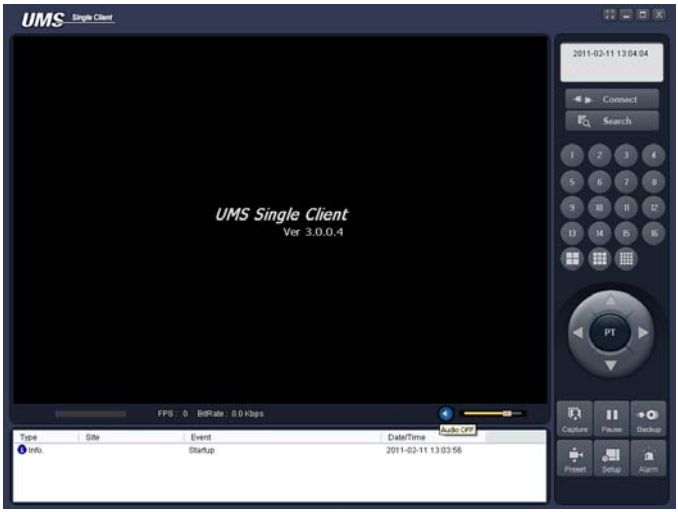
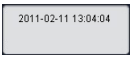


Table 19. UMS Single Client window components

Button	Function	Description
	WINDOW CONTROL	Buttons for expanding the image to full screen (press **ESC** to return to normal viewing), minimizing the window, expanding window to full screen, and closing the window.
	DATE & TIME	Displays the current date and time.
	CONNECT/DISCONNECT	Connect/disconnect a DVR.
	SEARCH	Switches from Live mode to Search mode.
	KEYPAD	Select a channel. Click the channel button, or double-click the channel on the Live view screen.
	SPLIT-SCREEN MODE	Select a split-screen mode 4-, 9-, or 16-channel display.,
	PAN/TILT/ZOOM/ FOCUS	Control the PAN/TILT/ZOOM/FOCUS features on the remote camera.

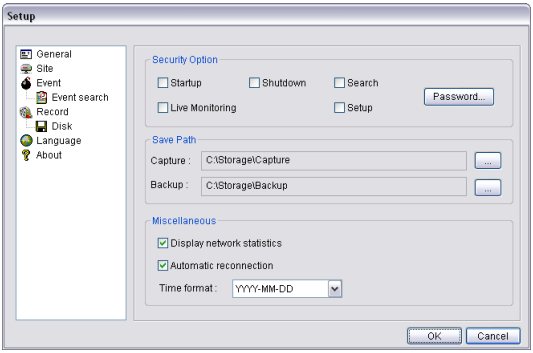
Button	Function	Description
	FUNCTIONS	**CAPTURE**: Capture a still image of the screen. **PLAY/PAUSE** Play/freeze live video **BACKUP**: Initiate backup operation (record on/off). **PRESET**: Select camera position preset. **SETUP**: Open the setup menus. **ALARM**: The ON/OFF button of the alarm output of the DVR. When an alarm is active, this button is red.
	HDD USAGE	DVR HDD space used Indicator.
	NETWORK BANDWIDTH	Shows the transferred frames and network bandwidth.
	AUDIO	Adjust the volume. Audio is on or muted by clicking the speaker icon.
	LOG WINDOW	

8.4 Setup

The UMS Single Client includes several setup options, including presets for the DVRs you want to connect to. To open the setup menus, click the **Setup** button.

8.4.1 General Setup

When the Setup menu is opened, the **General** options are displayed.



General options include:

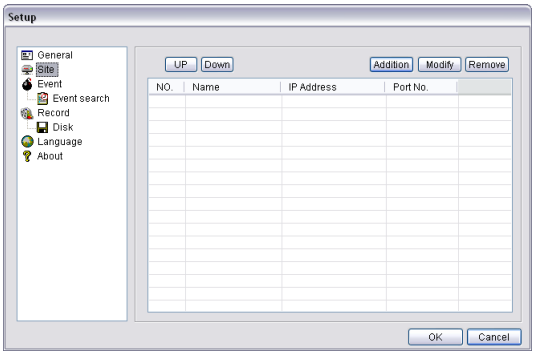
- **Security Option**: Set a password for security options. If set, you must enter the password when accessing any of the security functions.

- **Save Path**: Specify the location backup and still image captures are saved.
- **Automatic Reconnection**: If a user selects this function, the client will automatically try to connect to the previously connected IP address if the network connection is lost.
- **Display Network Statistics**: The client can display network status, bit rate and frame rate.
- **Time Format**: Select the format for displaying the time.

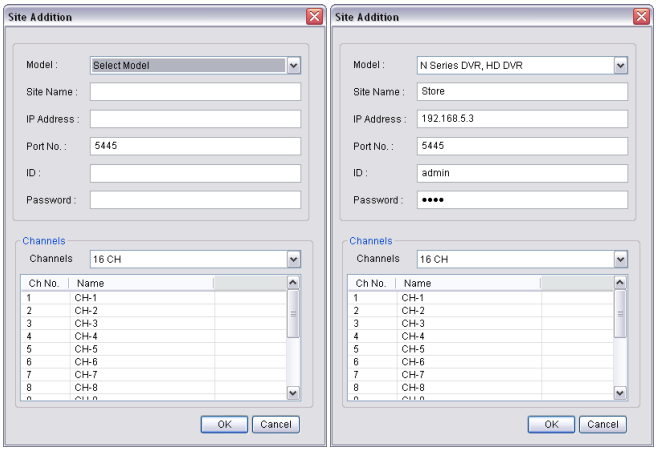
After entering all fields in the **Site Additions** window, click **OK** to save your entries and exit the Setup menus.

8.4.2 Site Setup

To open the Site menu, click the **Site** entry in the left frame of the **Setup** window.



Initially, no site (DVR) is listed. To add a site, click the **Addition** button.



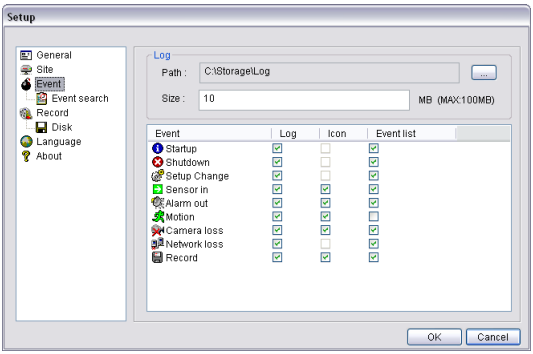
In the Site Addition menu, enter:

- **Model:** Select **N Series DVR, HD DVR** if you are connecting to a BLK-DH200400D, BLK-DH200800D, or BLK-DH201600D DVR
- **Site Name**: Enter an appropriate name for the DVR you will connect to.
- **IP Address**: Enter the IP address and web port number (if other than 80).
- **Port No**: Enter the port number for the DVR. The default DVR port number is 5445.
- **ID**: Enter your login ID (login name).
- **PASSWORD**: Enter the password associated with the login ID. The default login ID and password are **Admin** and **1111**.
- **Channels**: Enter the number of channels supported by your DVR (4, 8, or 16).

After entering all fields in the **Site Additions** menu, click **OK** to save your entries and exit the Setup menus.

8.4.3 Event Setup

To open the Event menu, click the **Event** entry in the left frame of the **Setup** window. The Event menu allows you to configure how the client will display and log event information received from the DVR.



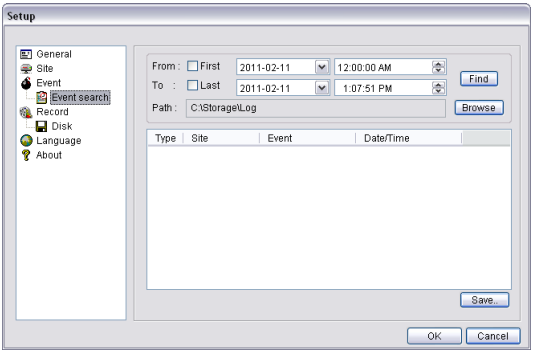
In the Event Setup menu, set the following:

- **Log Path**: Click the browse button to identify where event log files are saved.
- **Log Size**: Set the maximum size in megabytes of the event log file space.
- **Event Log**: For each event type, select the checkbox to save the event data in the log file.
- **Event Icon**: For each event type, select the checkbox to display the event on live video.
- **Event List**: For each event type, select the checkbox to show the event in the Event List in live mode.

After entering all fields in the **Site Additions** menu, click **OK** to save your entries and exit the Setup menus.

8.4.4 Event Search Setup

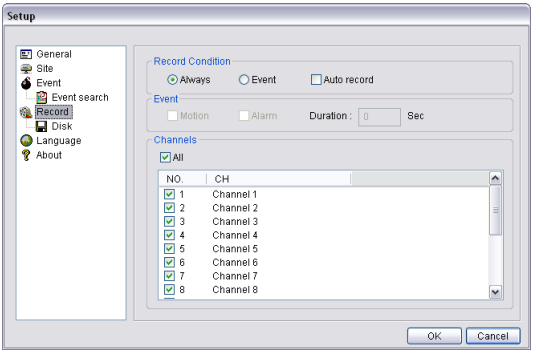
The Event Search window is used to display a list of the logged events that occurred during a specified time period. Use the dropdown lists to choose the **From** and **To** times, then browse to the location of the log file. To save the list of events to another file, click **Save**. An event timestamp can be used to easily find the video recordings of the event.



After entering all fields in the **Event Search** menu, click **OK** to save your entries and exit the Setup menus.

8.4.5 Record Setup

To open the Record menu, click the **Record** entry in the left frame of the **Setup** window. The Record menu allows you to configure the conditions that trigger live video recording.



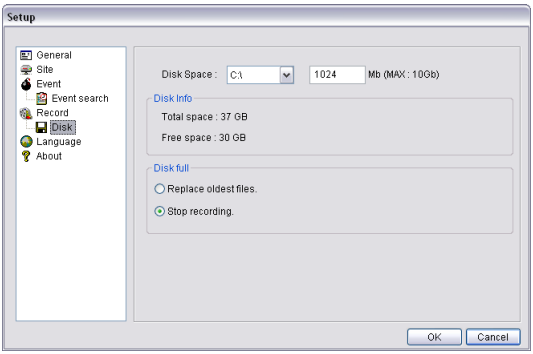
In the Record menu, set the following:

- **Record Condition**: Select **Always** or **Event**, then **Auto record**.
- **Event**: If Event was selected as the Record Condition, select the type of event and the duration of the recording.
- **Channels**: Select the channels to be recorded during the conditions selected above.

After entering all fields in the **Record** menu, click **OK** to save your entries and exit the Setup menus.

8.4.6 Record Disk Setup

To open the Record Disk menu, click the **Disk** entry in the left frame of the **Setup** window. The Disk menu allows you to select the location where recorded data is saved, and the amount of space on the disk to allocate for recordings.



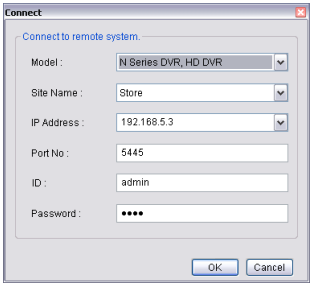
In the Disk menu, select the storage drive from the dropdown list, then enter the size of the storage buffer in megabytes. Choose either **Replace oldest files** or **Stop recording** when the disk is full. Click **OK** to save your entries and exit the Setup menus.

8.4.7 Language Setup

To open the Language menu, click the **Language** entry in the left frame of the **Setup** window. Choose the preferred on-screen language from the dropdown list, then click **OK** to save the selection and close the Setup menu.

8.5 Connecting to a DVR

To connect to a DVR, click the **Connect** button. The **Connect** dialog window will open. The **Connect** window is filled by the entry made in the **Setup Site** menu.



In the **Connect** window, use the dropdown lists to select the DVR you want to connect to, then click **OK**. A Live view window from your DVR will be displayed.

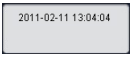
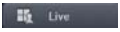
8.5.1 Bidirectional Audio

The UMS Single Client supports bidirectional audio between the client PC and a DVR. To use bidirectional audio, the client PC must have a microphone and speakers. At the DVR, connect a microphone to the audio-in connectors, and a pair of amplified speakers to the audio-out connectors.

8.6 Remote Search mode and functions

After connecting to the DVR, the UMS Single Client can be used to search for and playback recorded video. Video clips can then be backed up to a USB drive or local hard disk. To open the **Search** screen, click the **Search** button.

Table 20. UMS Single Client Search window components

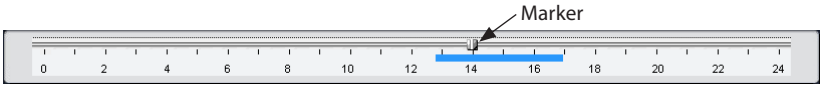
Button	Function	Description
	WINDOW CONTROL	Buttons for expanding the image to full screen (press **ESC** to return to normal viewing), minimizing the window, expanding window to full screen, and closing the window.
	DATE & TIME	Displays the current date and time.
	CONNECT/DISCONNECT	Connect/disconnect network connection.
	LIVE	Switches from search mode to live mode.
	KEYPAD	Select a channel. Click the channel button, or double-click the channel on the live view screen.
	SPLIT-SCREEN MODE	Select a split-screen mode 4-, 9-, or 16-channel display.,

Button	Function	Description
	CALENDAR	In the calendar frame, dates with recorded video are colored in light blue. Click the date of the recorded video you want to find or play.
	FUNCTIONS	**CAPTURE**: Capture a still image of the screen/camera. **MARK IN**: Set the start time at the marker position **MARK OUT**: Set the end time at the marker position **SETUP**: Display the setup screen of the network viewer. **BACKUP**: Backup the video clip from MARK IN time to MARK OUT time
	HDD USAGE	DVR HDD space used Indicator.
	AUDIO	Adjust the volume. The audio is on or muted by clicking the speaker icon.
	TIMELINE Bar	Displays a timeline for the date selected in the calendar frame. Time spans when video is recorded are marked in blue. To expand the display for an hour when video was recorded, drag the marker to the hour you want to expand, then click the **0 - 60** button (located below the time line).
	PLAYBACK BUTTONS	Use the playback buttons to control video playback. The playback buttons are labeled with the standard icons used for video play control.

\

8.6.1 Searching for and playing video recorded by the DVR

1. At the UMS Single Client, connect to the DVR.
2. Press the **SEARCH** button. The client will change from live mode to search mode.
3. In the calendar frame, click the date when video was recorded.
4. Drag the marker on the timeline to the time at which you want to play recorded video. To expand the hour within which the marker lies, click the **0 - 60** button below the time line.



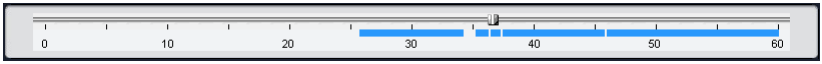
5. Click the **PLAY** button to begin playing video at the marker position.

8.6.2 Backing up video from the DVR on the UMS Single Client PC

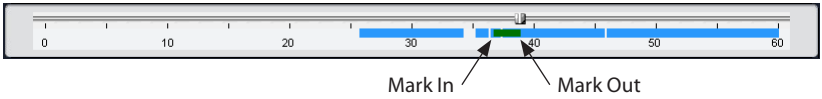
Video recorded in the DVR can be backed up on the PC where the UMS Single Client is installed. Video clips are saved in AVI format.

1. At the UMS Single Client, connect to the DVR.
2. Click the **SEARCH** button. The client will change from live mode to search mode.
3. In the calendar frame, click the date when the video was recorded.
4. Drag the marker on the timeline to the time at which you want to play recorded video.

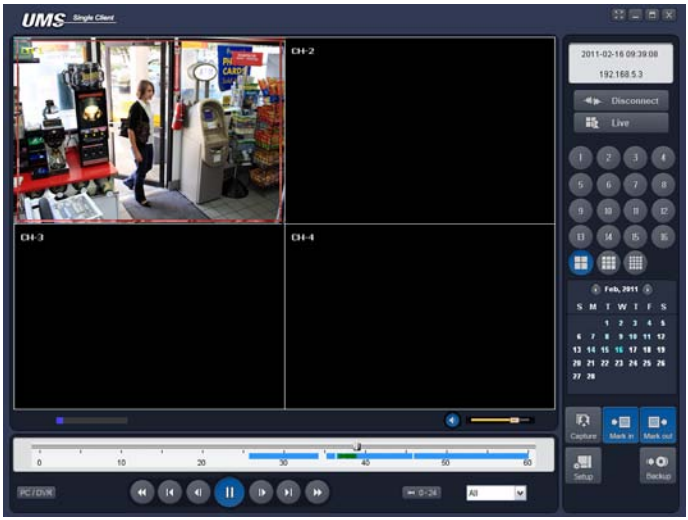
To expand the hour within which the marker lies, click the **0 - 60** button below the time line.



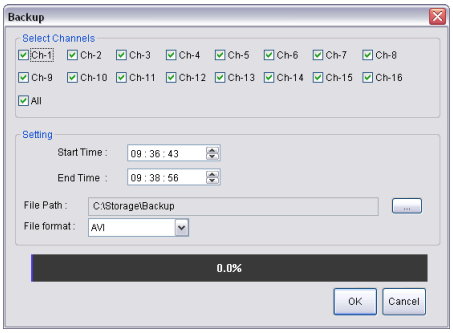
5. Play the video to determine the time where you want to start backing up a clip, then pause the playback and click the **MARK IN** button.
6. Continue playing the video to determine the time where you want to end the clip, then stop the playback and click the **MARK OUT** button. The time span between the MARK IN and MARK OUT times will be highlighted in dark green.



7. Click the **PLAY** button to view the video clip you marked.



8. To backup the video clip you marked, stop the video playback, then press the **BACKUP** button. The **Backup** menu window will open.



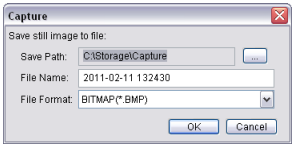
9. In the **Backup** menu, select the options you want, then click **OK**.

10. A pop-up window will appear when the backup operation is complete. Click **OK** to close the backup operation.

NOTE *Video backup can take several minutes to complete, depending on the number of channels selected and the duration of the clip.*

8.6.3 Image capture

A still image of a screen can be captured in either Live mode or Search mode, then saved as a BMP or JPEG file. To capture a still image of the screen, click the **Capture** button. A Capture menu will open.



In the **Capture** menu, select the options you want, then click **OK**. An image of the screen will be saved at the location you specified.

SECTION 9

UMS Multi Client Software

UMS Multi Client software can monitor several DVRs (sites) simultaneously. It can display to up 256 live video channels on one screen, playback video clips, control PTZ cameras, monitor alarms, and be configured with 2-way audio communication through the DVR.

NOTE *In a high bandwidth network, a maximum of four users can access one DVR simultaneously. In a low bandwidth network it is recommended that only one user access the DVR at a time.*

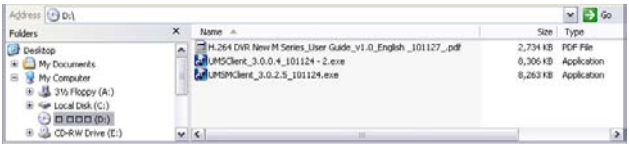
9.1 PC Requirements

For the UMS Multi Client software, the minimum PC requirements are:

- **CPU**: Intel® Pentium® IV, 2GHz or faster
- **Memory**: 512MB (1GB or larger is recommended.)
- **VGA memory**: 16MB (64MB or larger is recommended.)
- **Resolution**: 1024 x 768
- **Disk space**: 1GB
- **Supported operating systems**: Microsoft Windows 2000, XP Professional, XP Home, Vista (Some versions of Windows Vista are incompatible. Contact Supercircuits for more information.)
- **Network**: 10/100BaseT network
- **DirectX**: DirectX 8.1 or higher

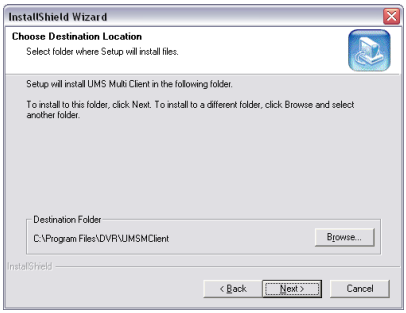
9.2 Installing the UMS Multi Client

1. Insert the provided CD in the CD drive. Open a file list of the CD, then double-click "UMSMClient(xxxxxx).exe"

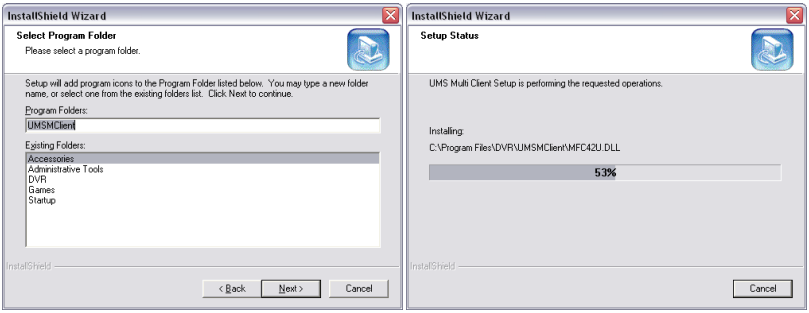


CD file list (typical)

2. After files are extracted, a Choose Destination Location window will open. Browse for the your preferred location, then click "**Next**".


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install UMS Multi Client in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\DVR\UMSMClient
Browse...
InstallShield
< Back
Next >
Cancel

3. Select the program folder and click "**Next**". The setup status screen is displayed.



4. Select a Program Folder for the **Start** menu, then click **Next**. The UMS Multi Client will be installed and a "UMS Multi Client" icon will be displayed on the desktop.

5. Close the InstallShield window.

9.3 UMS Multi Client initial display

To open the UMS Multi Client, double click the icon on the desktop or open it through the Windows **Start** menu.

Table 21. UMS Multi Client window components

Button	Function	Description
	WINDOW CONTROL	Buttons for expanding the image to full screen (press **ESC** to return to normal viewing), minimizing the window, expanding window to full screen, and closing the window.
	SEARCH LOCAL	Search for video files recorded on the local PC.
	SEARCH REMOTE	Search for video files recorded on the DVR.
	SITE CONTROLS	Applies control to sites selected in the site list below. These icons link to: refresh thumbnail, site addition, site delete, net finder (site modify)
	SITE LIST	List of sites added to the DVR. The site list appears in the pane beneath the site controls icons.
	CONNECT	Click to connect to sites selected in the frame above.
	DISCONNECT	Click to disconnect to sites selected in the frame above.
	SETUP	Open the setup menus
	CAPTURE	Capture a still image of the screen.

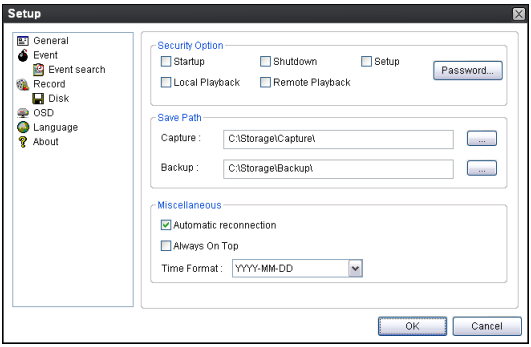
Button	Function	Description
	EVENT LIST	Opens the list of events logged by the UMS Multi Client.
	PAUSE	Freezes the screen
	ALARM	
	RECORD	Enable/disable recording of live video.
	SPEAKER, MICROPHONE	Controls for adjusting the volume of the speaker and microphone.
	PTZ FOCUS/ZOOM	Buttons for controlling PTZ camera focus and zoom (in/out).
	PTZ PAN/TILT	Buttons for controlling PTZ camera pan (◀ ▶) and tilt (▲ ▼).
	CHANNEL SPLIT	Use to select the number of channels (1/4/9/16) shown on the screen.
	SITE SPLIT	Use to select the number of DVRs (1/4/9/16) shown on the screen.

9.4 Setup

The UMS Multi Client includes several setup options. To open the setup menus, click the **Setup** button.

9.4.1 General Setup

When the Setup menu is opened, the **General** options are displayed.



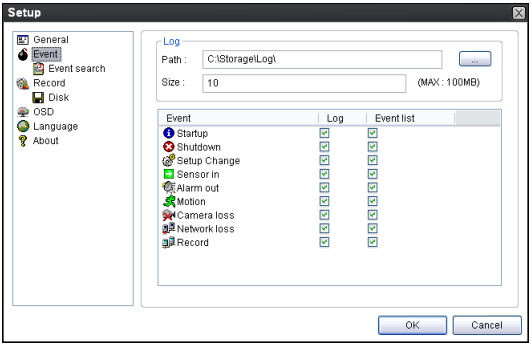
General options include:

- **Security Option**: Set a password for security options. If set, you must enter the password when accessing any of the security functions.
- **Save Path**: Specify the location backup and still image captures are saved.
- **Automatic Reconnection**: If a user selects this function, the client will automatically try to reconnect to the previously connected IP address if the network connection is lost.
- **Display Network Statistics**: The client can display network status, bit rate and frame rate.
- **Time Format**: Select the format for displaying the time.

After entering all fields in the **Site Additions** window, click **OK** to save your entries and exit the Setup menus.

9.4.2 Event Setup

To open the Event menu, click the **Event** entry in the left frame of the **Setup** window. The Event menu allows you to configure how the client will display and log event information received from the DVR.



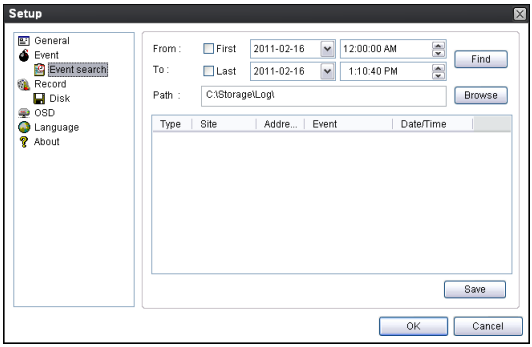
In the Event Setup menu, set the following:

- **Log Path**: Click the browse button to identify where event log files are saved.
- **Log Size**: Set the maximum size in megabytes of the event log file space.
- **Event Log**: For each event type, select the checkbox to save the event data in the log file.
- **Event Icon**: For each event type, select the checkbox to display the event on live video.
- **Event List**: For each event type, select the checkbox to show the event in the Event List in live mode.

After entering all fields in the **Site Additions** menu, click **OK** to save your entries and exit the Setup menus.

9.4.3 Event Search Setup

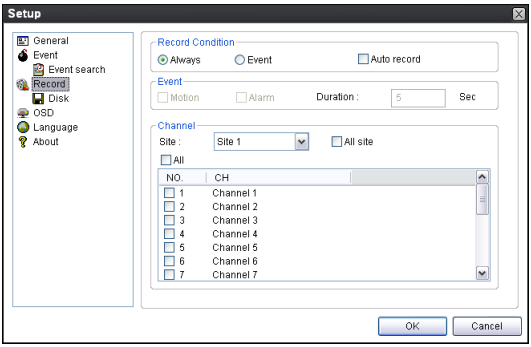
The Event Search window is used to display a list of the logged events that occurred during a specified time period. Use the drop-down lists to choose the **From** and **To** times, then browse to the location of the log file. To save the list of events to another file, click **Save**. An event timestamp can be used to easily find the video recordings of the event.



After entering all fields in the **Event Search** menu, click **OK** to save your entries and exit the Setup menus.

9.4.4 Record Setup

To open the Record menu, click the **Record** entry in the left frame of the **Setup** window. The Record menu allows you to select the conditions in which live video from the cameras is recorded.



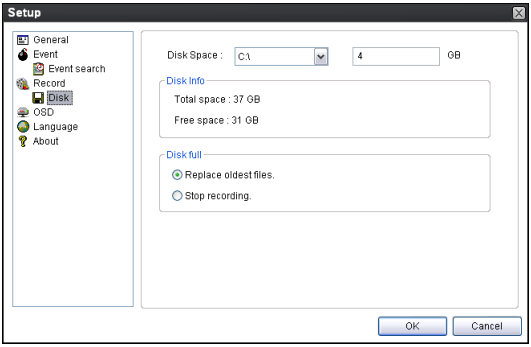
In the Record menu, set the following:

- **Record Condition**: Select **Always** or **Event**, then **Auto record**.
- **Event**: If Event was selected as the Record Condition, select the type of event and the duration of the recording.
- **Channels**: Select the channels to be recorded during the conditions selected above.

After entering all fields in the **Record** menu, click **OK** to save your entries and exit the Setup menus.

9.4.5 Record Disk Setup

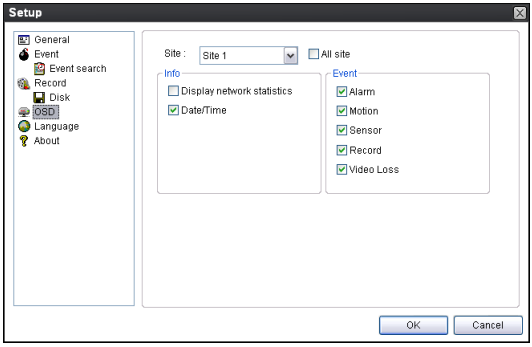
To open the Record Disk menu, click the **Disk** entry in the left frame of the **Setup** window. The Disk menu allows you to select the location where recorded data is saved, and the amount of space on the disk to allocate for recordings.



In the Disk menu, select the storage drive from the dropdown list, then enter the size of the storage buffer in megabytes. Choose either **Replace oldest files** or **Stop recording** when the disk is full. Click **OK** to save your entries and exit the Setup menus.

9.4.6 OSD Setup

To open the OSD (On Screen Display) menu, click the **OSD** entry in the left frame of the **Setup** window. The OSD menu allows you to select the kinds of information and events messages that appear on the scree. Each site you connect to can be configured differently.



After selecting the preferred options in the **OSD** menu for each site, click **OK** to save your entries and exit the Setup menus.

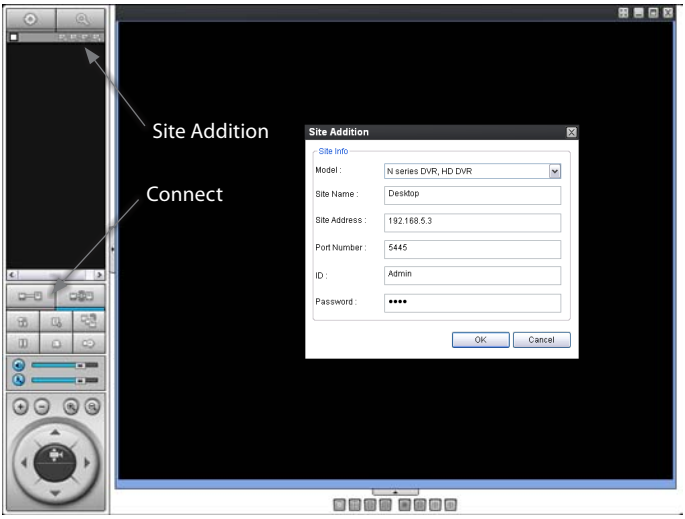
9.4.7 Language Setup

To open the Language menu, click the **Language** entry in the left frame of the **Setup** window. Choose the preferred on-screen language from the dropdown list, then click **OK** to save the selection and close the Setup menu.

9.5 Connecting to a DVR

To connect to a DVR for the first time:

1. Click the **Site Addition** button. The **Site Addition** dialog window will open.



2. In the **Site Addition** menu, enter:

   - **Model**: Select **N Series DVR, HD DVR** if you are connecting to a BLK-DH200400D, BLK-DH200800D, or BLK-DH201600D DVR
   - **Site Name**: Enter an appropriate name for the DVR you will connect to.
   - I**P Address**: Enter the IP address and web port number (if other than 80).
   - **Port No**: Enter the port number for the DVR. The default DVR port number is 5445.
   - **ID**: Enter your login ID (login name).
   - **PASSWORD**: Enter the password associated with the login name. The default login ID and password are **Admin** and **1111**.

3. After entering all fields in the **Site Additions** menu (see above) click **OK** to save your entries. An entry for the DVR you added will appear in the site list frame (below the Site Addition icon).

4. Click the checkbox in the entry you added to the site list .

5. Click the **Connect** button to connect to the DVR.

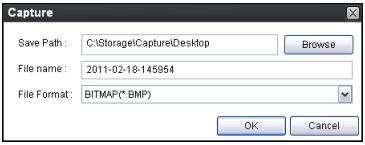
UMS Multi Client DVR Live View

9.5.1 Bidirectional Audio

The UMS Multi Client supports bidirectional audio between the client PC and a DVR. To use bidirectional audio, the client PC requires connections for a microphone and speakers. At the DVR, connect a microphone to the audio-in connectors, and a pair of amplified speakers to the audio-out connectors.

9.5.2 Capture

A still-image of a screen can be captured in either Live mode or Search mode and saved as BMP or JPEG file. To capture a still image of the screen, click the **Capture** button. A **Capture** menu will open.



In the **Capture** menu, select the options you want, then click **OK**. An image of the screen will be saved at the location you specified. By default, captured images are saved in the directory specified in the **Setup / General** menu. However, the Save Path can be changed in the **Capture** menu if necessary.

9.5.3 Record

Video recording of the live screen can be manually started and stopped by clicking the **Record** button. When video is being recorded, the **Record** button is highlighted blue. To stop recording, click the **Record** button again. By default, recorded video is saved in the path specified in the **Setup / General** menu.

9.6 Remote playback and backup

The UMS Multi Client can be used to search for and playback video clips in the DVR. Video clips can then be backed up to a local USB drive or disk.

NOTE *The Event List may provide valuable information on when alarms and other events occurred. To open the Event List, click the **Events List** button.*

9.6.1 Remote playback

To search for and recorded video from the DVR:

1. At the UMS Multi Client, connect to the DVR.

2. Click the **Remote playback** button. The client will change from live mode to the Search mode.

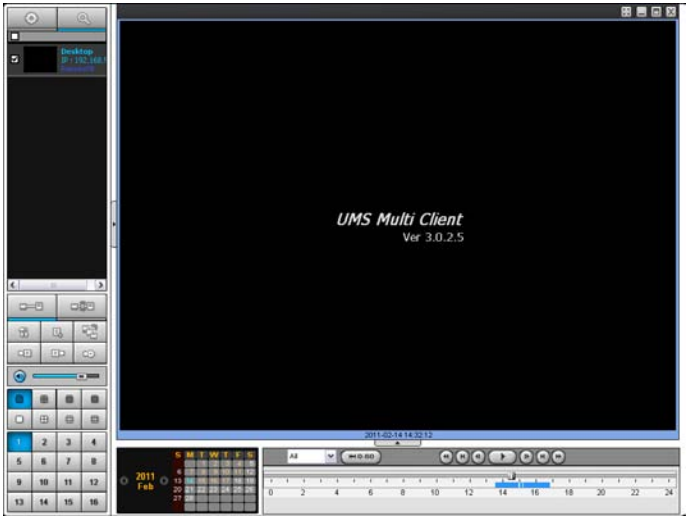


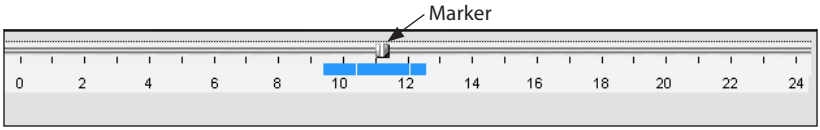
Table 22. UMS Multi Client search window components

Button	Function	Description
	FUNCTIONS	**SETUP**: Opens the Setup menu **CAPTURE**: Capture a still image of the screen/camera. **EVENT LIS**T: Displays logged DVR events. **MARK IN**: Set the start time at the marker position **MARK OUT**: Set the end time at the marker position **BACKUP**: Opens a menu to backup the section of video between the MARK IN time and MARK OUT time
	AUDIO	Adjust the volume. The audio is on or muted by clicking the speaker icon.
	MULTI-DVR DISPLAY SPLIT-SCREEN MODE	Display multiple DVRs Select a split-screen mode 1-, 4-, 9-, or 16-channel display.,
	KEYPAD	Select a channel. Click the channel button, or double click the channel on the live view screen.
	CALENDAR	In the calendar frame, days with recorded video are colored in light tan. Click the date of the recorded video you want to find or play. The date colored blue is the date date selected; the timeline shows when data was recorded on that date.
	TIMELINE Bar	Displays a timeline for the date selected in the calendar frame. Time spans when video is recorded are marked in blue. To expand the display for an hour when video was recorded, drag the marker to the hour you want to expand, then click the **0 - 60** button (located below the time line).
	PLAYBACK BUTTONS	Use the playback buttons to control video playback. The playback buttons are labeled with the standard icons used for video play control.

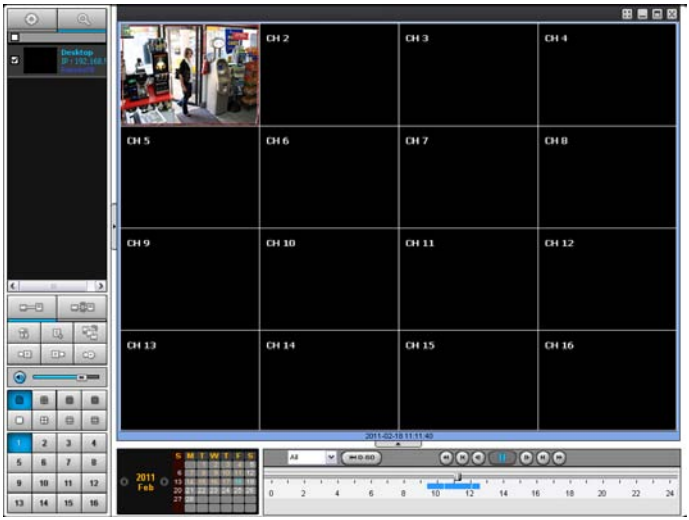
3. Select the DVR (checkbox) of the unit you want to see recorded video from.

4. In the calendar frame, click the date when the video of interest was recorded.

5. Drag the marker on the timeline to the time at which you want to play recorded video. To expand the hour within which the marker lies, click the **0 - 60** button above the timeline.



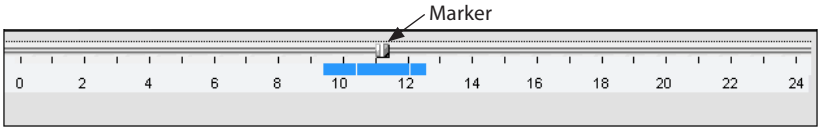
6. Click the **PLAY** button to begin playing video at the marker position.



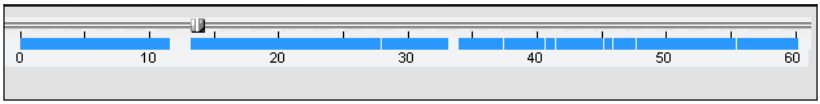
9.6.2 Backing up video from the DVR on the UMS Multi Client PC

Video recorded in the DVR can be backed up on the PC where the UMS Multi Client is installed. Video clips are saved in AVI or NFS format.

1. At the UMS Multi Client, connect to the DVR.
2. Click the **Remote playback** button. The client will change from Live mode to the Search mode.
3. Select the DVR (checkbox) of the unit you want to see video from.
4. In the calendar frame, click the date when the video of interest was recorded.
5. Drag the marker on the timeline to the time at which you want to play recorded video.

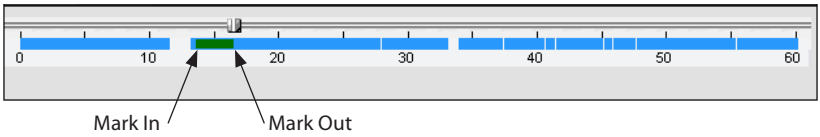


To expand the hour within which the marker lies, click the **0 - 60** button above the timeline.

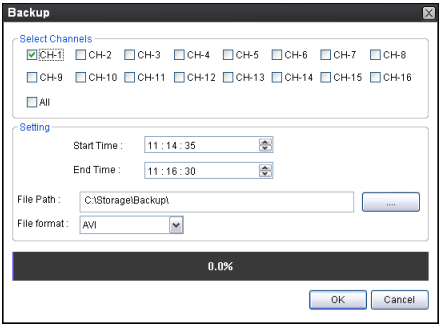


6. Play the video to determine the time where you want to start backing up a clip, then stop the playback and click the **MARK IN** button.

7. Continue playing the video to determine the time where you want to end the clip, then stop the playback and click the **MARK OUT** button. The time span between the MARK IN and MARK OUT times will be highlighted in dark green.



8. To backup the video clip, click the **BACKUP** button. The **Backup** menu window will open.



9. In the **Backup** menu, select the options you want, then click **OK**.

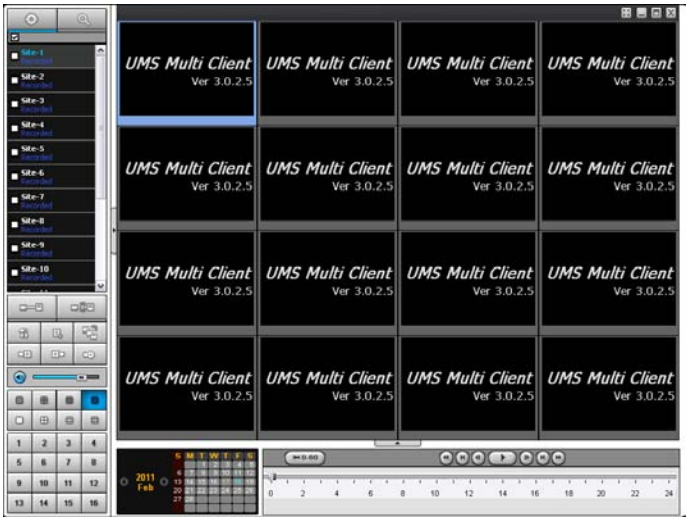
10. A pop-up window will appear when the backup operation is complete. Click **OK** to close the Backup operation.

NOTE *Video backup can take several minutes to complete, depending on the number of channels selected and the duration of the clip.*

9.7 Local playback

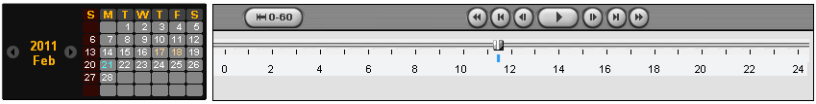
Use the Local Playback feature to play video recorded by the UMS Multi Client record feature and saved on the local PC. To play these recordings:

1. Click the **Local playback** button. The playback window will open.

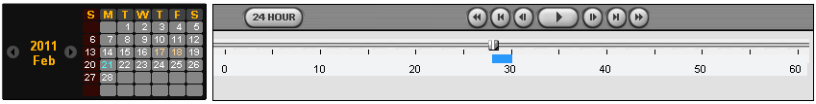


2. In the directory frame, select the site(s) you want to play recordings of. The calendar will indicate which days have recorded video files on the local PC.

3. Click the day of the recording you want to play, then drag the marker to the time when video was recorded.



Click the 0 - 60 button above the timeline to expand the time scale.



4. Use the video play control buttons above the timeline to play the video.

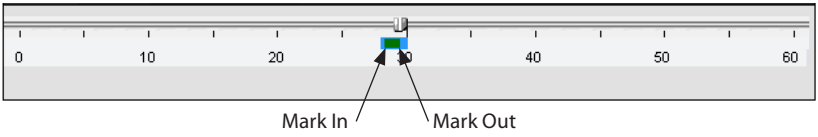
9.7.1 AVI backup during playback

Video recorded by the UMS Multi Client is saved on the local PC in .NDB file format. To save the video clip of a recorded file in .AVI file format (compatible with most media players), perform a backup operation:

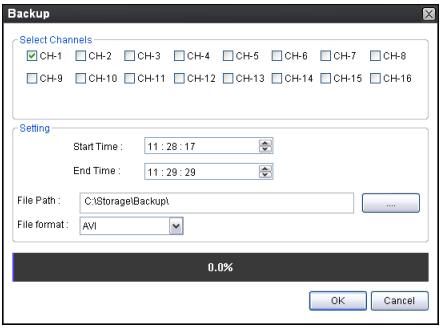
1. Play the video file that contains the segment you want to save in .AVI format. (See **Local playback** above.)

2. Play the video to determine the time where you want to start backing up a clip, then stop the playback and click the **MARK IN** button.

3. Continue playing the video to determine the time where you want to end the clip, then stop the playback and click the **MARK OUT** button. The time span between the MARK IN and MARK OUT times will be highlighted in dark green.



4. To backup the video clip, press the **BACKUP** button. The **Backup** menu window will open.



5. In the **Backup** menu, select the options you want, including the AVI file format, then click **OK**.

6. A pop-up window will appear when the backup operation is complete. Click **OK** to close the Backup operation.

NOTE *Video backup can take several minutes to complete, depending on the number of channels selected and the duration of the clip.*

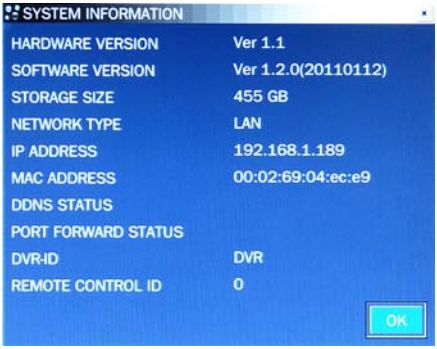
NOTE *If your media player cannot play the file backed-up in AVI file format, it probably doesn't use the correct CODEC. Update your H.264 CODEC and retry playing the file.*

SECTION 10

WebViewer

WebViewer is a Microsoft Internet Explorer (IE) browser based DVR administrative tool. It is embedded in the DVR and loaded into the browser when the DVR is accessed. The DVR can be accessed locally (on the same local network), or from a connection to the Internet (remotely), depending on the network configuration. The URL (internet address) of the DVR is different depending the path used to connect to it.

If your computer is on the same local network as the DVR you are accessing, the URL is the IP address shown in the DVR System Information window. In the example shown below, the URL is the IP ADDRESS: 192.168.5.3.



If you are accessing your DVR remotely, your DVR may be addressed as a port forwarded through the router or device that connects the network with the DVR to the Internet, or through an established DDNS web service connection such as WWW.OKDDNS.COM. Refer to Supercircuits ***DVR Networking Guide***, and WWW.OKDDNS.COM for more information.

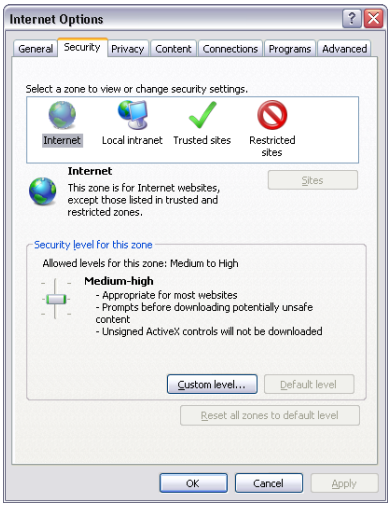
10.1 Connecting to the DVR with IE

After your DVR is setup on a local LAN, use IE to connect to it to verify the DVR connectability. This connection increases flexibility for monitoring and configuring your security system.

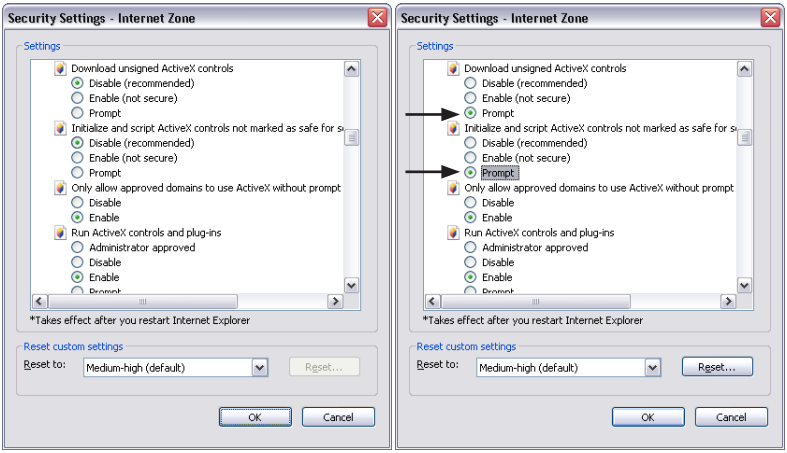
Before you can connect to the DVR with IE, the (default) security settings in IE are modified slightly to allow it to install an software from the DVR.

1. At your PC, load IE.

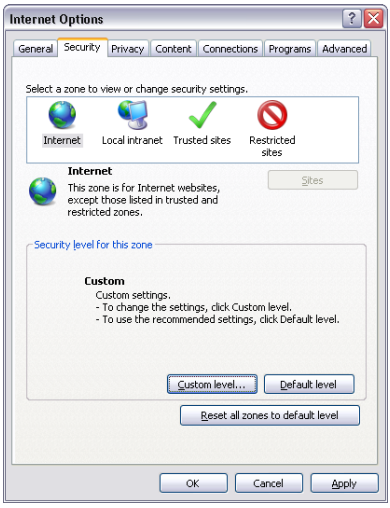
2. Open the IE **Tools** pull-down menu and select **Internet Options**. Click the **Security** tab.



3. Click the **Custom Level...** button. In the Settings list, change the following settings from **Disable** to **Prompt**:
   Download unsigned ActiveX controls
   Initialize and script ActiveX controls not marked as safe for scripting



Click **OK**, then click **YES** in the **Warning** window.



In the **Internet Options** window, click **Apply**, then click **OK** to close the window.

NOTE *If your computer operating system is Windows Vista or Windows 7, User Account Control can interfere with the normal operation of the DVR user interface. To disable UAC, open the Control Panel > User Account > User Account window, clear the* **Use User Account Control (UAC) to help protect your computer** *check box, then click* **OK**. *A computer restart may be required.*

4. In the IE URL field, enter the IP address assigned to your DVR. Using the example shown above, enter:
   192.168.5.3

5. If a message appears to load the Nadatel-WebViewer, click **Install**. Follow the prompts to Install the program.

Internet Explorer - Security Warning
Do you want to install this software?
Name:
Publisher: NADATEL CO., LTD
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust.

After the WebViewer loads, the Connect screen will be available.

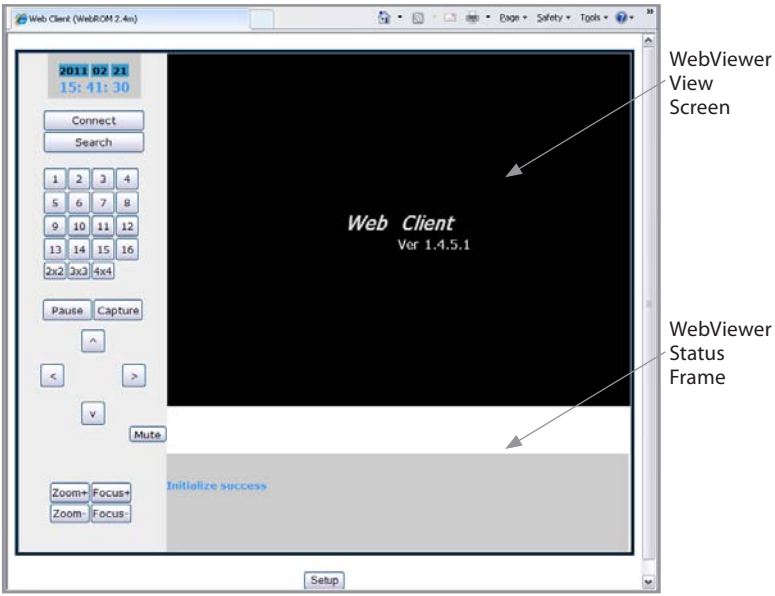
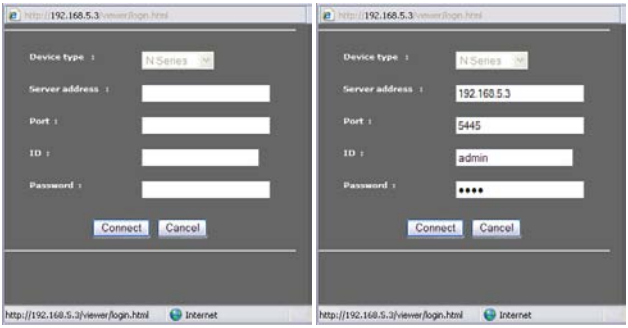


Table 23. WebViewer Live window components

Button	Function	Description
2011 02 21 15: 41: 30	TIMESTAMP	Timestamp window. When WebViewer is not connected, it shows the PC time. When WebViewer is connected and showing live video, it indicates the DVR timestamp. When WebViewer is playing video, it is the timestamp of the video frame.
Connect	CONNECT / DISCONNECT	Used to initiate a connection to a DVR, or disconnect from a DVR.
Search	SEARCH / LIVE	Used to switch between the search window and the live mode window.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	CHANNEL SELECT	Used to select and display one channel.
2x2 3x3 4x4	SPLIT SCREEN SELECT	Used to select the screen split: 2x2, 3x3, 4x4
Pause Capture	PAUSE / CAPTURE	**PAUSE**: use to freeze the screen in live mode, or freeze playback. **CAPTURE**: use to save a snapshot of the current screen.

Button	Function	Description
^ < > v	PTZ DIRECTIONAL CONTROI	Used to control the direction of the selected PTZ camera.
Mute	MOTE	Use to mute audio during live mode or playback.
Zoom+ Focus+ Zoom- Focus-	ZOOM / FOCUS	Use to control the zoom and focus of the selected PTZ camera.
Setup	SETUP	Use to open the Setup menu window.

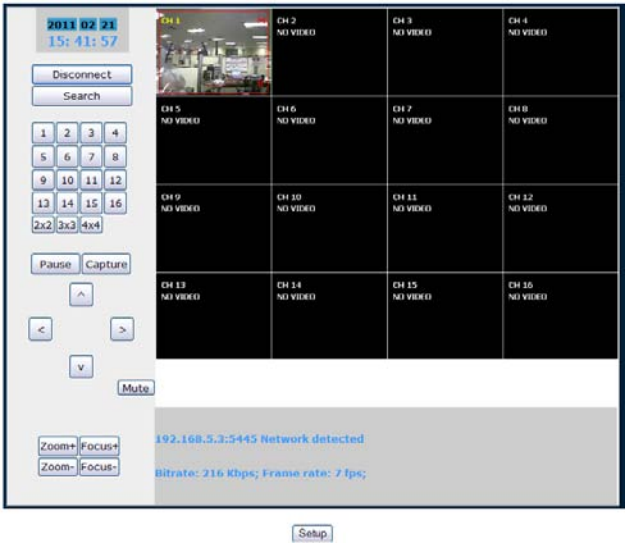
6. Click the **Connect** button. A **Connect Webpage Diaglog** menu window will open.



In the Webpage Dialog menu, enter:

- **Server address:** For access across a local network (WebViewer PC on the same subnet as the DVR), use the DVR IP address. For access from the internet, use the DDNS URL (if available) or router/modem IP address with forwarded port number. (See Supercircuits' *DVR Networking Guide* for more information.)
- **Port**: Port number of the DVR (default = 5445)
- **ID**: Username. The default username for the DVR is **Admin**.
- **Password**: Password for the user ID. For ID Admin, the default password is **1111**.

7. Click **Connect** to connect to your DVR. After connecting to the DVR, the connection status will appear in the Status frame, and the DVR camera views will appear in the view screen.



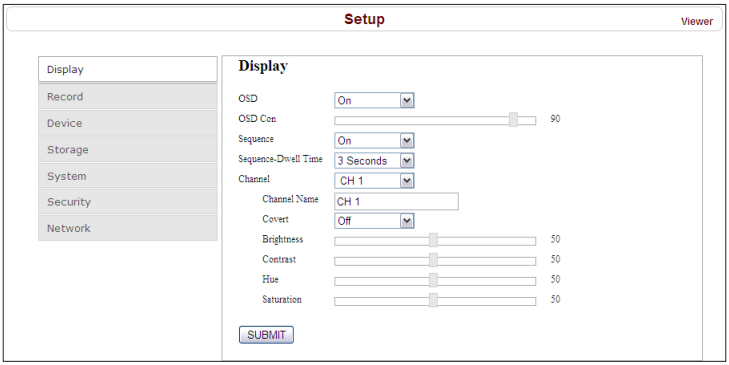
10.2 Setup

The Setup feature enables you to configure your DVR through WebViewer. The Setup menu system includes the following submenus: Display, Record, Device, Storage, System, Security, and Network. Components in these submenus are similar to those in the DVR SETUP submenus (refer to Section 3 for definitions).

To enter the Setup menus after connecting to your DVR, click the **Setup** button. To enter a submenu, click the submenu name listed down the left side of the screen. To exit the Setup menus, click **Viewer** in the upper-right corner of the screen.

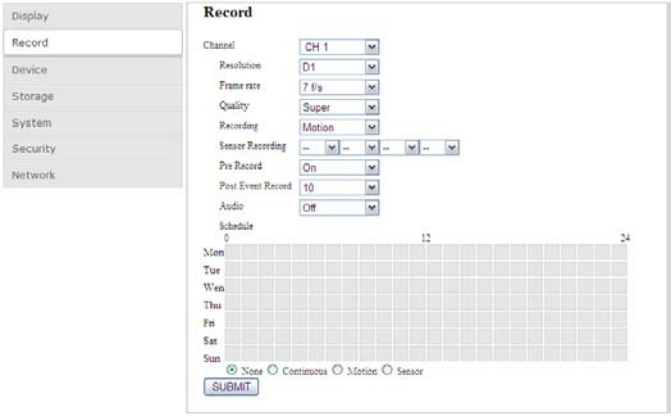
10.2.1 Setup Display

Use the Display submenu to setup the sequential viewing of the channel and adjust the video quality of the display.



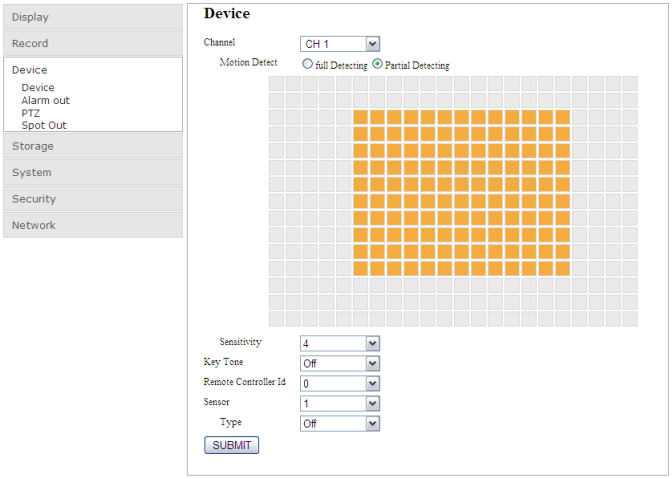
10.2.2 Setup Record

Use the Record submenu to setup the recording mode for each camera channel.

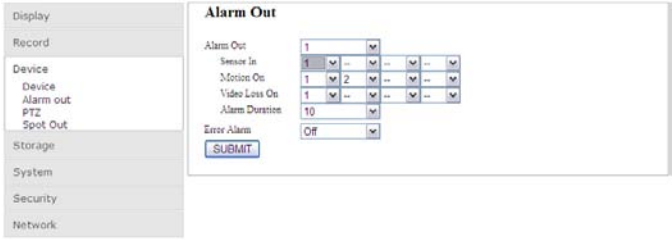


10.2.3 Setup Device

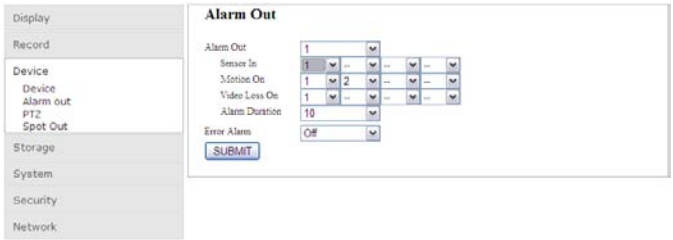
Use the Device submenu to setup the Device, Alarm out, PTZ, and Spot Out configuration. To enter the device submenus, click the submenu entry under Device.



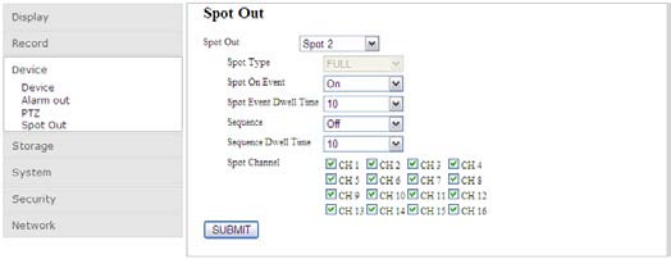
Device - Device submenu



Device - Alarm Out submenu



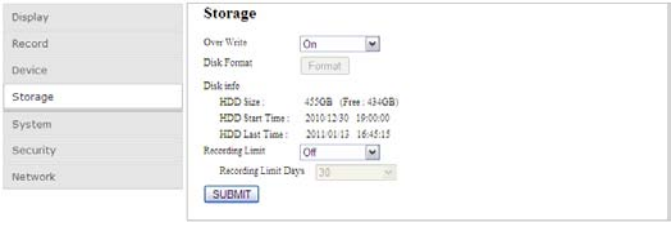
Device - PTZ submenu



Device - Spot Out submenu

10.2.4 Setup Storage

Use the Storage submenu to setup the recording configuration of the DVR HDD.



10.2.5 Setup System

Use the System submenu to setup the system ID and access control, Date / Time, Send Email configuration, and NTP server access credentials. To enter the System submenus, click the submenu entry under System.

System - System submenu

System - Description submenu

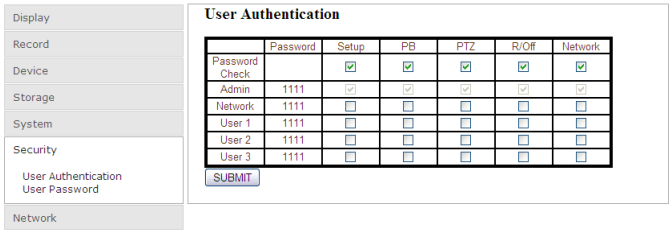
System - Date / Time submenu

System - Send Email submenu

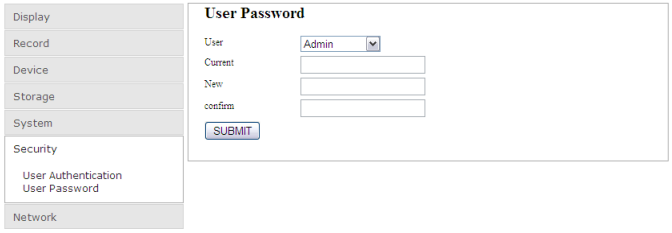
System - NTP submenu

10.2.6 Setup Security

Use the Security submenu to setup the user IDs, passwords, and permissions. To enter the Security submenus, click the submenu entry under Security.



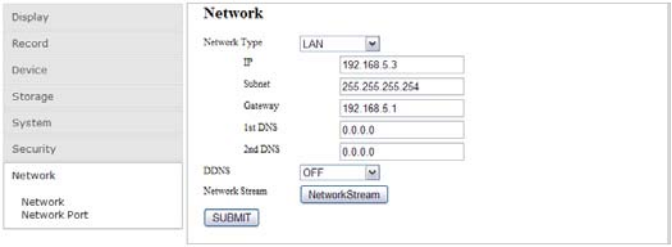
Security - User Authentication submenu



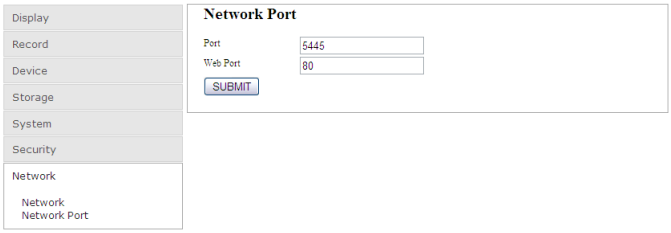
Security - User Password submenu

10.2.7 Setup Network

Use the Network submenu to setup the Network IP address, subnet, DNS/DDNS configuration, and ports assigned to the DVR.



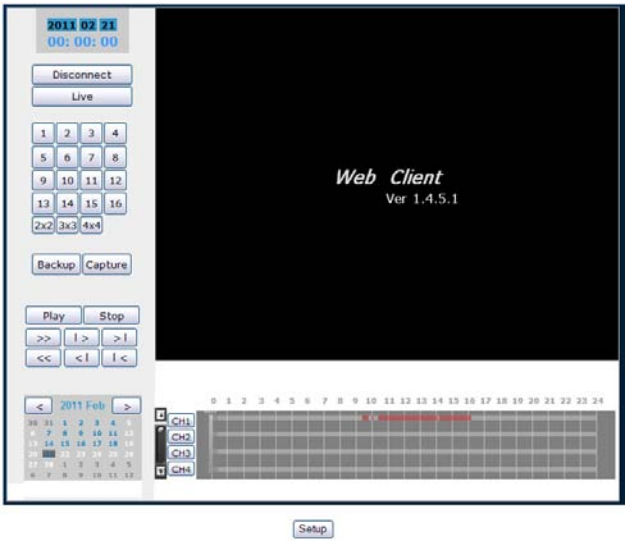
Network - Network submenu



Network - Port submenu

10.3 DVR Search

In Search mode, you can watch video recorded by your DVR, backup video clips, and capture still images from recorded video. To switch to Search mode, click the **Search** button on the Live mode display.



WebViewer Search window

Table 24. WebViewer Search window components

Button	Function	Description
2011 02 21 15: 41: 30	TIMESTAMP	Timestamp window. When WebViewer is not connected, it shows the PC time. When WebViewer is connected and showing live video, it indicates the DVR timestamp. When WebViewer is in search mode or playing video, it shows the timestamp of the video frame.
Disconnect	DISCONNECT	Used to initiate a connection to a DVR, or disconnect from a DVR.
Live	LIVE / SEARCH	Used to switch from the search mode window and the live mode window.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	CHANNEL SELECT	Used to select and display one channel.
2x2 3x3 4x4	SPLIT SCREEN SELECT	Used to select the screen split: 2x2, 3x3, 4x4
Backup Capture	BACKUP / CAPTURE	**BACKUP**: use to backup recorded video. **CAPTURE**: use to save a snapshot of the current screen.

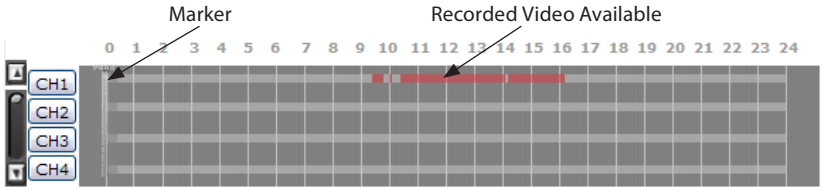
Button	Function	Description
	PLAY / STOP CONTROl	Used to play and pause video playback. Video is played starting at the position of the timeline marker. .
	PLAYBACK MOTION CONTROL	Used to control the playback of recorded video from the position of the marker on the timeline. Button function is (left to right, upper row to lower row): **Forward, Next frame, Forward jump, Review, Previous frame,** and **Rewind jump**.
	CALENDAR	On the calendar frame, video was recorded on days colored blue. The day selected is highlighted.
	TIMELINE	The timeline shows for each channel when video was recorded on the day selected.

10.3.1 Playing recorded video

1. Connect to the DVR (see above).

2. If WebViewer is in Live mode, slick **Search** to open the Search window.

3. In the calendar frame, click the day when the video you want to play was recorded. Sections of the timeline highlighted in red indicate that live video was recorded on that channel at that time.



4. On the timeline, drag the marker to the time at which you want to play video, then click **Play**. The exact time position of the marker is shown in the upper-left corner of the Search window.

5. To stop playing the video, click **Stop**.

10.4 Backup recorded video

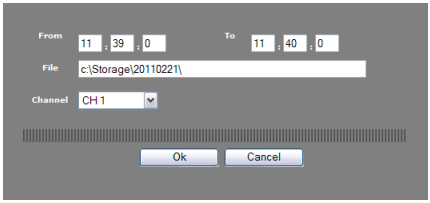
Video clips (sections of video tracks) can be backed up and saved for playback on other devices. To backup a video clip, first determine the start time (From), the end time (To), and the channel of the recorded video you want to backup.

1. Playback the recorded video you want to backup.

2. While watching the video, determine the exact starting timestamp and ending timestamp of the video clip you want to backup.

3. Click **Stop** to stop the video playback.

4. Click **Backup** to open the backup menu. In the Backup window, edit the **From** (starting timestamp), **To** (ending timestamp), and **File** (save to location) fields as needed.



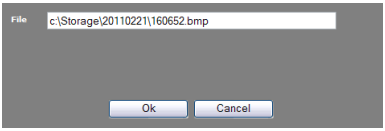
Select the **Channel** of the video from the dropdown list, then click **Ok** to begin the backup operation. A progress bar will appear showing the status of the backup. Allow the backup operation to complete before continuing.

5. To play the backed-up video file, open the file in an .AVI file compatible video player.

10.4.1 Capture

A snapshot of the screen image can taken in live mode, during pause, in playback mode, or when video playback is stopped. To take a snapshot:

1. When connected to your DVR, click **Capture**. The parameter screen will open.



2. Click **Ok**. A snapshot of the screen image will be saved in .BMP format.

SECTION 11
Specifications

Table 25. Specifications

ITEM			DH200400D	DH200800D	DH201600D
Video	Input	Channel, Input Level	4 channel, composite	8 channel, composite	16 channel, composite
		Signal Format	NTSC		
		Video Loss Check	Yes		
	Output	Main Monitor Output	1 VGA (1024 x 768 or 1280 x 1024 @ 60Hz),		
		Signal Format	VGA		
		Spot	2		
Audio	Input / Output		4 channel line input / 1 channel line output		
	Audio CODEC		G.711		
Alarm	Sensor Input (NC/NO selectable)		4 channel (NC/NO selectable)		
	Alarm Output		1 alarm out by sensor, motion and video loss		
Record	Compression		H.264		
	Multi-Operation		QUADPLEX (Playback/Record/Network/Backup)		
	Resolution		D1 120 fps	D1 120 fps	D1 120 fps
			Half-D1 120 fps	Half-D1 240 fps	Half-D1 240 fps
			CIF 120 fps	CIF 240 fps	CIF 480 fps
	Recording Quality Grade		ECONOMY, STANDARD, HIGH, SUPERIOR, ULTRA		
	Recording Mode		Continuous / Schedule / Motion/ Sensor/ Manual		
	Motion Detection		Motion detection setup by grid		
	Recording by Channel Resolution		Yes		
	Pre Recording		1 fps for 10 seconds before an event		
	Post Recording		10 seconds to 3 minutes after an event		
Display	Frame Rate (/Sec)		30 fps / channel, 60 fields		
Playback	Multi-Decoding		1, 4	1, 4, 8	1, 4, 8, 16
	Playback Speed	Multi Channel	x2, x4, x8, x16		
		Multi-Channel	x2, x4, x8		
	Search Mode		Timeline, Event, Archive, Log		

ITEM			DH200400D	DH200800D	DH201600D
Storage	HDD	Interface Type	Serial ATA		
		Capacity of 1 HDD	2TB (maximum)		
		Internal HDD No.	1		
	File System		NaFS		
	USB Port		2 (front 1, rear 1)		
	Backup	USB Flash drive	Video and still image		
		Built-in DVD-R/W	Video and still image		
		Network	Video and still image		
User I/F	Menu Display		GUI		
	Input Method		Front panel buttons, remote control, mouse, keyboard controller		
Serial port	Console		1 RS-232C (9-pin D-SUB connector)		
	PTZ control & Keyboard DVR control		1 RS-485		
	Termination		Yes		
Network	Dynamic DNS		Yes (free DDNS)		
	Network Interface		10/100/1000 Base-T Ethernet (RJ-45)		
	Dual Encoding for Network Streaming		Yes (CIF 120/100 fps)		
Network Access	Client Software (1:1)		Live, Search, Backup, PTZ camera control, remote setup		
	Web Viewer (1:1)		Live, Search, Backup, PTZ camera control		
	Multi-sites Monitoring System (1:n)		Live, Search, Backup, PTZ camera control, remote setup		
Features	DLS (Day Light Saving)		Yes		
	Internal Beep		By Alarm, Motion, Video Loss, HDD error		
	Multi-Language		Yes		
	Firmware Upgrade		USB flash drive		
	NTP		Yes		
	3G Mobile		Yes		
	POS / ATM		Yes (TBD)		
	Watermark		Yes		
Power Source	Power Supply Voltage		DC 12V 5A		
Allowable Operating Temperature			41°F - 104°F (5°C - 40°C), Storage: 14°F - 122°F (-10°C - +50°C)		
Allowable Operating Humidity			0 - 90%		
Weight / Gross weight			9 lbs (4.1 kg) / 13.6 lbs (6.2 kg)		
Dimension (W x H x D)			14.9" x 13.3" x 2.8" (380 mm x 340 mm x 72 mm)		

APPENDIX A

HDD Replacement

The hard disk drive (HDD) included in your system is a security grade device, factory tested and certified to be functional with all operations of the DVR.

> > > OPENING THE DVR ENCLOSURE WILL VOID THE WARRANTY < < <

If you need to change the HDD installed in your DVR, return the device to Supercircuits for a factory installation (preserves the warranty), or refer to the HDD compatibility list in Appendix C for recommended HDD models. If installing an HDD, use the following instructions.

> > > OPENING THE DVR ENCLOSURE WILL VOID THE WARRANTY < < <

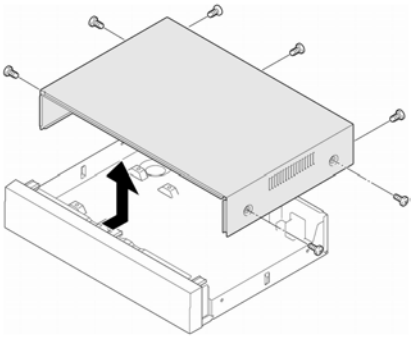
The HDD you install must be compatible with the DVR hardware. Refer to the HDD compatibility list in this appendix.

CAUTION *The DVR must be powered off when installing an HDD.*

To install the HDD, do the following:

1. Power off the DVR and disconnect the power adapter.

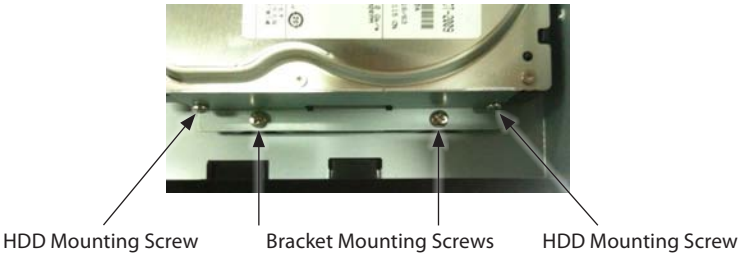
2. Remove the DVR top cover.



3. With the front panel facing you, find the HDD. It is located in the right-front corner.

4. Carefully disconnect the power/data cable connector from the HDD.

5. Remove the 4 bracket mounting screws, two on the front side and two on the back side of the HDD.



6. Carefully lift the HDD and bracket assembly out of the chassis and lay it on a clean, level surface.

7. Remove the brackets from the HDD by removing the four HDD mounting screws.

8. Attach the brackets to the new HDD using the four HDD mounting screws removed in the previous step.

9. Set the HDD and bracket assembly into the HDD enclosure in the same position and orientation as the one removed.

10. Reattach the brackets to the DVR chassis using the four bracket mounting screws removed earlier.

11. Reconnect the HDD power/data cable connector to the HDD.

12. Reinstall the HDD chassis cover.

Table 26. Compatible HDDs

Manufacturer	Model	Capacity	Speed	cache
Seagate®	ST32000542AS (Barracuda LP)	2 TB	5900 RPM	32 MB
	ST31000340SV (Surveillance)	1 TB	7200 RPM	32 MB
	ST3100528AS (Barracuda)	1 TB	7200 RPM	32 MB
	ST3500830SCE	500 GB	7200 RPM	8 MB
	ST3500418AS (Barracuda)	500 GB	7200 RPM	16 MB
	ST3500410AS (Barracuda)	500 GB	7200 RPM	16 MB
	ST3250410AS (Barracuda)	250 GB	7200 RPM	16 MB
	ST3250310SV (Surveillance)	250 GB	7200 RPM	8 MB
	ST3250318AS (Barracuda)	250 GB	7200 RPM	8 MB
	ST3160815AS (Barracuda)	160 GB	7200 RPM	8 MB
HITACHI®	HDS722020ALA330	2 TB	7200 RPM	32 MB
	HDS721010KLA330	1 TB	7200 RPM	32 MB
	HDT721010SLA360	1 TB	7200 RPM	16 MB
	HDS721010CLA332	1 TB	7200 RPM	32 MB
	HDS721050CLA362	500 GB	7200 RPM	16 MB
	HDP725050GLA360	500 GB	7200 RPM	16 MB
	HDS721032CLA362	320 GB	7200 RPM	16 MB
	HDS721025CLA382	250 GB	7200 RPM	8 MB
	HDT721025SLA380	250 GB	7200 RPM	8 MB
	HDP725025GLA380	250 GB	7200 RPM	8 MB
Western Digital®	WD20EADS	2 TB	7200 RPM	32 MB
	WD10EACS	1 TB	7200 RPM	16 MB
	WD5000AACS	500 GB	7200 RPM	16 MB
	WD2500AAKS	250 GB	7200 RPM	16 MB

APPENDIX B
Device Log

The following table is provided as an aid to setting up and logging the analog devices on your system.

Analog Camera Device Summary

Channel	Camera Model	Audio (Y/N)	Location
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

APPENDIX C

DVR Setup Menu Components

The following lists show the components in each SETUP menu tab (submenu).

- DISPLAY
  - OSD
  - OSD CONTRAST
  - SEQUENCE
  - SEQUENCE DWELL TIME
  - CHANNEL
    - NAME
    - COVERT
    - BRIGHTNESS
    - CONTRAST
    - HUE
    - SATURATION
- RECORD
  - CHANNEL
    - RESOLUTION
    - FRAME RATE
    - QUALITY
    - RECORDING
    - SENSOR RECORDING
    - PRE RECORD
    - POST EVENT RECORD
    - AUDIO
    - SCHEDULE
- DEVICE
  - ALARM OUT
    - SENSOR IN
    - MOTION ON
    - VIDEO LOSS ON
    - ALARM DURATION
    - ERROR ALARM
  - PTZ
    - CHANNEL
    - NAME
    - SPEED
    - ID
  - SPOT OUT
    - SPOT OUT 1
    - SPOT OUT 2
  - CHANNEL
    - MOTION ZONE
    - MOTION SENSITIVITY
  - KEY TONE
  - REMOTE CONTROLLER ID
  - SENSOR
    - TYPE
- STORAGE
  - OVERWRITE
  - DISK FORMAT
  - DISK INFO
  - RECORDING LIMIT
    - RECORDING LIMIT DAYS
- SYSTEM
  - DVR-ID
  - DESCRIPTION
  - LANGUAGE
  - DATE FORMAT
  - SET DATE & TIME
    - DAYLIGHT SAVING
    - SET DATE & TIME
  - CLIENT ACCESS
  - BANDWIDTH SAVING
  - SEND EMAIL
  - NTP
- SECURITY
  - USER AUTHENTICATION (ADMIN, NETWORK, USER1, USER2, USER3)
  - USER PASSOWRD

- NETWORK
  - NETWORK TYPE (DHCP, ADSL, LAN)
  - DDNS
    - DDNS SERVER 1
    - DDNS SERVER 2
  - NETWORK PORT
    - PORT
    - WEB PORT
    - PORT FORWARD
  - NETWORK STREAM
    - FRAME RATE
    - BITRATE
- CONFIG
  - SAVE SETUP TO A USB
  - LOAD SETUP FROM A USB
  - LOAD DEFAULT
  - LOAD FACTORY DEFAULT
- QUCK SETUP
  - OSD
  - OSD CONTRAST
  - SEQUENCE
  - SEQUENCE-DWELL TIME
  - CHANNEL
    - NAME
    - COVERT
    - BRIGHTNESS
    - CONTRAST
    - HUE
    - SATURATION